



**WILLIAMS**

**TOOLS OF  INDUSTRY**

**THE BROADEST LINE OF ITS KIND**

**CATALOG No. 503**

**H D TAYLOR CO.**  
2574 South Park  
Lackawanna, NY  
TR 5370-71

**J. H. WILLIAMS & CO., BUFFALO 7, N. Y.**

**DIVISION OF UNITED-GREENFIELD CORPORATION**

## ALPHABETICAL INDEX

<b>ADJUSTABLE WRENCHES</b> .....	12	<b>LATHE DOGS</b>	
<b>AUGER BITS</b> —Power Type.....	58	Bent Tail.....	86
<b>BITS</b>		Bent Tail, Heavy Service.....	86
Cutter, Carbide Tipped.....	84	Clamp.....	86
Cutter, High Speed.....	85	Home-Craft.....	83
Cutter, High Speed—Ground.....	84	Milling Machine.....	86
Power Auger.....	58	<b>MASONRY DRILLS</b> —Carbide Tipped ..	59
<b>BODY and FENDER REPAIR TOOLS</b>		<b>METRIC WRENCHES</b>	
Dolly Blocks.....	57	Open End.....	56
Files (Flexible Curved Tooth).....	58	Offset Box.....	56
Hammers.....	57	Sockets.....	56
Spoons.....	57	<b>PINCH BARS</b> .....	69
<b>BRAKE TOOLS</b>		<b>PIPE TONGS</b>	
Pliers.....	67	Improved "Vulcan".....	75
Wrenches.....	54	"Vulcan".....	74
<b>CABINETS</b>		"Vulcan" Reversible.....	75
Mobile, Tool.....	39	"Vulcan" Superior.....	74
<b>CLAMPS</b>		<b>PIPE VISES</b>	
"C" Clamps.....	90, 91	"Vulcan".....	72
Machinists' Clamps.....	91	"Vulcan" Aluminum Vise Stand.....	73
Strap Clamps.....	87	"Vulcan" Superior.....	72
<b>CHISELS</b> .....	69	<b>PISTON RING COMPRESSOR</b> .....	55
<b>DRILLS</b>		<b>PLIERS</b> .....	66, 67
Masonry.....	59	<b>POWER AUGER BITS</b> .....	58
Twist, Jobber Length.....	59	<b>POWER DRIVE SOCKETS</b> .....	46-53
<b>EYE BOLTS</b> —Blank and Threaded ..	94, 95	<b>PUNCHES</b> .....	68
<b>FEELER GAUGES</b> .....	64, 65	<b>PULLERS</b>	
<b>FILES</b> —Flexible Files and Holder.....	58	Gear.....	62-64
<b>FLANGE-JACKS</b> .....	73	Wheel.....	62
<b>GEAR PULLERS</b> .....	62-64	<b>REFRIGERATION TOOLS</b>	
<b>HAMMERS</b>		Flare-Nut Wrenches.....	21
Ball Pein.....	58	Flaring Tool.....	36
Body and Fender Workers.....	57	Gear Pullers.....	62-64
Soft-Face.....	60, 61	Ratchets.....	37
<b>HANDLES</b>		Set.....	36
Balance.....	93	Tube Cutter.....	36
Crank.....	93	<b>ROD ENDS</b> .....	95
Machine.....	93	<b>SCREW DRIVERS</b> .....	70, 71
<b>HOIST HOOKS</b>		<b>SCREW EXTRACTORS</b> .....	58
Eye Pattern—Regular.....	96	<b>SET-UP ACCESSORIES</b>	
Eye Pattern—Safety.....	97	Hex Nuts for T-Slot Bolts.....	88
Shank Pattern—Regular.....	96	Strap Clamps.....	87
Shank Pattern—Safety.....	97	T-Slot Bolts.....	88
<b>IMPACT SOCKETS</b> .....	46-53	T-Slot Nuts.....	88
		Washers.....	88
		Wedges.....	88
		<b>SOCKETS, HANDLES and PARTS</b>	
		1/4" Square Drive (Midget).....	22
		3/8" Square Drive (Bantam).....	25
		1/2" Square Drive (Standard).....	28
		3/4" Square Drive (Heavy Duty).....	32
		1" Square Drive (Extra Heavy Duty).....	34
		Adapters.....	37
		Allen Type Hollow Screw.....	23, 26, 29, 37
		Cadillac (Special).....	55
		Crowfoot Attachments.....	25, 26, 28
		Drag Link Socket Bits.....	28

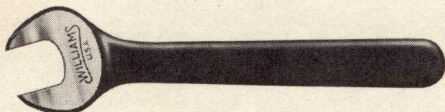


## ALPHABETICAL INDEX

Extra Deep Sockets . . . . .	23, 26, 29, 33	Car, Heavy "S" . . . . .	6
Impact Sockets . . . . .	46-53	Check Nut, Thin . . . . .	4
Metric Measure . . . . .	56	Construction . . . . .	5
Power Drive Sockets . . . . .	46-53	Engineers' . . . . .	2, 3
Ratchets . . . . .	22, 25, 28, 32, 34	Hex-Box . . . . .	8
Refrigeration . . . . .	37	Hex-Box, Striking Face . . . . .	8
Spark Plug Sockets . . . . .	29	Open-End, Engineers' . . . . .	2, 3
Stud Remover . . . . .	28	Set Screw . . . . .	7
"Superector" . . . . .	43	Socket, Straight and Offset . . . . .	9
Torque "Measurrenches" . . . . .	25, 28, 38	Spanners . . . . .	10, 11
Universal Sockets . . . . .	26, 29	Structural . . . . .	6
		Thin, Check Nut . . . . .	4
		Tool Post . . . . .	7
<b>SOCKET SETS</b>			
Diesel Locomotive . . . . .	40, 41	<b>WRENCHES, Alloy Steel "Superrenches"</b>	
Hollow Screw . . . . .	37	Adjustable ("Superjustable") . . . . .	12
Mobile Tool Cabinet . . . . .	39	Automotive Special . . . . .	54, 55
Refrigeration Service . . . . .	36	Box, 6-Point—Midget Offset . . . . .	17
"Superchest" No. 1001 . . . . .	42	Box, 12-Point—Offset . . . . .	18, 19
"Superchest" No. 2001 . . . . .	44, 45	Box, 12-Point—Single Head . . . . .	20
"Superector" . . . . .	43	Box, 12-Point—Striking Face . . . . .	20
"Supersocket" . . . . .		Brake . . . . .	54
1/4" Square Drive (Midget) . . . . .	23, 24	Chain . . . . .	72
3/8" Square Drive (Bantam) . . . . .	26, 27	Combination, Open End-Box . . . . .	16
1/2" Square Drive (Standard) . . . . .	29-31	Construction . . . . .	15
3/4" Square Drive (Heavy Duty) . . . . .	33	Electrical, or Ignition . . . . .	17
1" Square Drive (Extra Heavy Duty) 35		Flare Nut . . . . .	21
		Metric Measure . . . . .	56
		Midget . . . . .	17
<b>THUMB NUTS</b> . . . . .	92	Open End . . . . .	13, 14
		Open End-Box . . . . .	16
<b>THUMB SCREWS</b> . . . . .	92	Rim Wrench, Four Way . . . . .	54
		Spanners, Adjustable Hook . . . . .	21
<b>TOOL HOLDERS</b>		Striking Face Box . . . . .	20
Bits, Carbide . . . . .	84	Structural . . . . .	15
Bits, High Speed . . . . .	85	Structural Box . . . . .	21
Bits, High Speed—Ground . . . . .	84	Tappet . . . . .	14, 15
Boring Bars . . . . .	79	Tool Post . . . . .	21
Boring-Tools . . . . .	77-79	Torque "Measurrenches" . . . . .	25, 28, 38
Boring-Tools, Light . . . . .	77	"Multisocket," Eight-in-One . . . . .	55
Boring-Tools, Three Bar . . . . .	78		
Cutters, Carbide . . . . .	84	<b>WRENCH SETS</b>	
Cutters . . . . .	84-85	Box, Offset . . . . .	18, 19
Cutting-Off and Side Tools . . . . .	80	Carbon Steel, Open End . . . . .	2
Cutting-Off Tools, Spring . . . . .	80	Combination, Open End-Box . . . . .	16
Extension Shaper Tools . . . . .	82	Diesel Locomotive . . . . .	40, 41
"Home-Craft" . . . . .	83	General Purpose . . . . .	55
Knurling Tools and Knurls . . . . .	81	Hollow Screw . . . . .	37
Lathe Tool Sets . . . . .	82	Midget Box . . . . .	17
Planing Tools . . . . .	82	Midget Open End . . . . .	17
Threading-Tools . . . . .	79	Mobile Tool Cabinet . . . . .	39
Tool Posts . . . . .	89	Offset Box . . . . .	18, 19
Tool Post Rings . . . . .	89	Open End . . . . .	2, 14
Tool Post Wedges . . . . .	89	Open End-Box . . . . .	16
Turning-Tools, Carbide . . . . .	76	Refrigeration Service . . . . .	36
Turning-Tool Sets, Carbide . . . . .	76	Spanner . . . . .	11, 21
Turning-Tools . . . . .	77	"Superchest" No. 1001 . . . . .	42
		"Superchest" No. 2001 . . . . .	44, 45
<b>TOOL POSTS, RINGS and WEDGES</b> . . . . .	89	"Superector" . . . . .	43
		"Supersocket" . . . . .	
<b>TONGS</b>		1/4" Square Drive (Midget) . . . . .	23, 24
Chain Pipe . . . . .	74, 75	3/8" Square Drive (Bantam) . . . . .	26, 27
		1/2" Square Drive (Standard) . . . . .	29-31
<b>VICES</b>		3/4" Square Drive (Heavy Duty) . . . . .	33
Chain Pipe . . . . .	72	1" Square Drive (Extra Heavy Duty) 35	
<b>WRENCHES, Carbon Steel</b>		Tappet . . . . .	14, 15
Box, Hex . . . . .	8	Torque "Measurrench" . . . . .	38
Box, Square . . . . .	7		
"Bull Dog" . . . . .	11		

# WILLIAMS

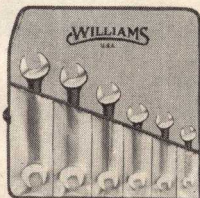
## WILLIAMS' OPEN END (ENGINEERS') WRENCHES Carbon Steel Single Head—15° Angle



Drop-forged and hardened. Smooth, black enameled finish, head faces bright. Sizes stamped on heads. Wrenches No. 11 and larger have tapered handle. Handles can be bent above heads at angles of 45° to 90° from opening, at an additional charge.

No.	Nominal Opening	Thickness Head	Overall Length
S000	3/16	5/32	2 1/2
S00	1/4	3/16	2 7/8
00	5/16	3/16	3 5/8
700	3/8	7/32	4 1/8
0	13/32	7/32	4 1/8
701	7/16	1/4	4 3/4
1	1/2	1/4	4 3/4
702	9/16	9/32	5 5/8
2	19/32	9/32	5 5/8
703	5/8	5/16	6 1/2
3	11/16	5/16	6 1/2
704	3/4	11/32	7 3/8
4	25/32	11/32	7 3/8
705	13/16	13/32	8 3/8
5	7/8	13/32	8 3/8
6	15/16	15/32	9 1/2
706	1	15/32	9 1/2
7	1 1/16	17/32	10 3/4
707	1 1/8	17/32	10 3/4
8	1 1/4	5/8	12 1/4
8A	1 5/16	5/8	12 1/4
708A	1 3/8	5/8	12 1/4
9	1 7/16	11/16	13 7/8
709	1 1/2	11/16	13 7/8
10	1 5/8	3/4	15 1/2
10A	1 11/16	3/4	15 1/2

No.	Nominal Opening	Thickness Head	Overall Length
11	1 13/16	27/32	17 1/8
11A	1 7/8	27/32	17 1/8
12	2	29/32	18 7/8
12A	2 1/16	29/32	18 7/8
13	2 3/16	31/32	20 3/4
13A	2 1/4	31/32	20 3/4
14	2 3/8	1- 1/32	22 3/4
14A	2 7/16	1- 1/32	22 3/4
15	2 9/16	1- 1/8	24
15A	2 5/8	1- 1/8	24
16	2 3/4	1- 7/32	27
16B	2 13/16	1- 7/32	27
16A	2 15/16	1- 7/32	27
17A	3	1- 3/8	30
17	3 1/8	1- 3/8	30
18A	3 3/8	1-17/32	34
18	3 1/2	1-17/32	34
19B	3 3/4	1- 5/8	38
19	3 7/8	1- 5/8	38
19C	4 1/8	1- 5/8	38
19A	4 1/4	1- 5/8	38
20B	4 1/2	1- 7/8	42
20	4 5/8	1- 7/8	42
20A	5	1- 7/8	42
21A	5 3/8	2- 1/2	47
21B	5 3/4	2- 1/2	47
21C	6 1/8	2- 1/2	47
22A	6 7/8	3	52
22B	7 5/8	3	52

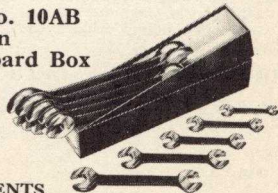


SET No. 25AR  
In  
Leatherette Roll  
  
SET No. 25AB  
In  
Cardboard Box

### CONTENTS

One each Nos. 723, 25, 727, 29, 731A and 33C with all popular openings 3/8" to 1".

SET No. 10AB  
In  
Cardboard Box



### CONTENTS

One each Nos. 723, 25, 727, 29, 731, 33A, 735, 37, 39A and 39C with openings 3/8" to 1-1/2".



# WILLIAMS

## WILLIAMS' OPEN END (ENGINEERS') WRENCHES

Carbon Steel  
Double Head—15° Angle



Drop-forged and hardened. Smooth black enameled finish, head faces bright. Sizes stamped on heads.

No.	Nominal Openings	Thickness Head	Overall Length
721	5/16 & 3/8	7/32	4-1/8
21	5/16 & 13/32	7/32	4-1/8
722	5/16 & 7/16	1/4	4-1/2
723	3/8 & 7/16	1/4	4-1/2
723A	3/8 & 1/2	9/32	4-7/8
23	13/32 & 1/2	9/32	4-7/8
24	13/32 & 19/32	9/32	5-1/4
725	7/16 & 1/2	9/32	5-1/4
725A	7/16 & 9/16	9/32	5-1/4
725B	1/2 & 9/16	5/16	5-3/4
25	1/2 & 19/32	5/16	5-3/4
726	1/2 & 5/8	5/16	6-1/4
26	1/2 & 11/16	5/16	6-1/4
727	9/16 & 5/8	5/16	6-1/4
27C	9/16 & 11/16	11/32	6-3/4
27	19/32 & 11/16	11/32	6-3/4
27B	5/8 & 11/16	11/32	6-3/4
728	9/16 & 3/4	11/32	7-1/4
28	19/32 & 25/32	11/32	7-1/4
28S	5/8 & 25/32	11/32	7-1/4
729	5/8 & 3/4	11/32	7-1/4
29B	11/16 & 3/4	3/8	7-7/8
29	11/16 & 25/32	3/8	7-7/8
29C	11/16 & 13/16	3/8	7-7/8
730	5/8 & 13/16	13/32	8-1/2
30	11/16 & 7/8	13/32	8-1/2
731	3/4 & 13/16	7/16	9-1/8
731A	3/4 & 7/8	7/16	9-1/8
31B	25/32 & 13/16	7/16	9-1/8
31	25/32 & 7/8	7/16	9-1/8
731B	13/16 & 7/8	7/16	9-1/8
32B	13/16 & 15/16	15/32	10
33A	7/8 & 15/16	15/32	10
733	7/8 & 1	15/32	10
33C	15/16 & 1	15/32	10
34	7/8 & 1-1/16	17/32	11
34A	15/16 & 1-1/16	17/32	11
35	31/32 & 1-1/16	17/32	11
735	1 & 1-1/8	17/32	11

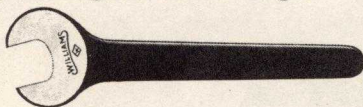
No.	Nominal Openings	Thickness Head	Overall Length
36B	1 1/16 & 1 1/8	19/32	12 3/8
37	1 1/16 & 1 1/4	19/32	12 3/8
737	1 1/8 & 1 1/2	19/32	12 3/8
37A	1 1/8 & 1 5/16	19/32	12 3/8
39B	1 1/4 & 1 5/16	21/32	14
39	1 1/4 & 1 7/16	21/32	14
39A	1 5/16 & 1 1/2	21/32	14
39C	1 3/8 & 1 7/16	21/32	14
40	1 1/4 & 1 5/8	3/4	15 3/4
41	1 1/4 & 1 5/8	3/4	15 3/4
41B	1 1/2 & 1 5/8	3/4	15 3/4
42	1 1/16 & 1 15/16	7/8	17
42A	1 1/2 & 1 11/16	7/8	17
43	1 5/8 & 1 15/16	7/8	17
44	1 5/8 & 2	15/16	19
44A	1 15/16 & 1 7/8	15/16	19
45	1 15/16 & 2	15/16	19
45A	1 7/8 & 2 1/16	15/16	19
47	2 & 2 3/16	1	21
47B	2 1/16 & 2 1/4	1	21
48	2 & 2 3/8	1- 1/16	23
49	2 3/16 & 2 3/8	1- 1/16	23
49A	2 3/4 & 2 1/16	1- 1/16	23
51	2 3/8 & 2 1/16	*1- 1/8	25
51A	2 1/16 & 2 5/8	*1- 1/8	25
53	2 3/16 & 2 3/4	*1- 7/32	27
53A	2 5/8 & 2 15/16	*1- 7/32	27
54C	2 3/4 & 2 15/16	*1- 3/8	30
55A	2 13/16 & 3	*1- 3/8	32
55B	2 15/16 & 3 1/8	*1- 3/8	32
57B	3 & 3 3/8	*1-17/32	36
57	3 1/8 & 3 1/2	*1-17/32	36
58A	3 3/8 & 3 3/4	*1- 5/8	38
58	3 1/2 & 3 7/8	*1- 5/8	38
60A	3 3/4 & 4 1/8	1- 5/8	40
60	3 7/8 & 4 1/4	1- 5/8	40
62A	4 1/8 & 4 1/2	*1- 7/8	43
62	4 1/4 & 4 5/8	*1- 7/8	43
63A	4 5/8 & 5	1- 7/8	47
64A	5 & 5 3/8	*2- 1/2	47

\* Large head only. Small head slightly thinner

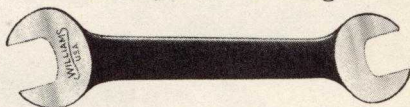
# WILLIAMS

## WILLIAMS' CHECK NUT WRENCHES Carbon Steel

Single Head—15° Angle



Double Head—15° Angle



For Check, Jam or Lock Nuts, etc.

Drop-forged and hardened. Smooth black enameled finish, head faces bright. Sizes stamped on heads.

This class of Wrench is guaranteed amply strong for its intended purpose, but is not designed for severe service.

No.	Nominal Opening	Thick-ness Head	Overall Length
601A	7/16	5/32	4
601	1/2	5/32	4
602A	9/16	11/64	4 1/2
602	19/32	11/64	4 1/2
603A	5/8	3/16	5 1/16
603	11/16	3/16	5 1/16
604A	3/4	7/32	5 15/16
604	25/32	7/32	5 15/16
605A	13/16	1/4	6 11/16
605	7/8	1/4	6 11/16
606	15/16	9/32	7 1/2
606B	1	9/32	7 1/2
607	1 1/16	5/16	8 1/2
607A	1 1/8	5/16	8 1/2
608	1 1/4	3/8	10
608A	1 5/16	3/8	10
609	1 7/16	7/16	11 5/8
609A	1 1/2	7/16	11 5/8
610	1 5/8	1/2	13 1/4
610A	1 11/16	1/2	13 1/4

No.	Nominal Openings	Thick-ness Heads	Overall Length
623	13/32 & 1/2	5/32	4 5/8
623D	7/16 & 1/2	5/32	4 5/8
624A	7/16 & 9/16	5/32	4 3/4
624B	1/2 & 9/16	5/32	4 3/4
625	1/2 & 19/32	5/32	4 3/4
626S	9/16 & 5/8	3/16	6
627	19/32 & 11/16	3/16	6
629D	5/8 & 3/4	3/16	6 3/4
629	11/16 & 25/32	3/16	6 3/4
630	11/16 & 7/8	7/32	7 1/2
630B	3/4 & 13/16	7/32	7 1/2
630E	3/4 & 7/8	7/32	7 1/2
631	25/32 & 7/8	7/32	7 1/2
631A	13/16 & 7/8	7/32	7 1/2
632C	7/8 & 15/16	1/4	8 3/4
634A	7/8 & 1	1/4	8 7/8
634	7/8 & 1 1/16	1/4	8 7/8
632X	15/16 & 1	1/4	8 7/8
634B	15/16 & 1 1/16	1/4	8 7/8
635D	1 & 1 1/8	9/32	10 1/2
637	1 1/16 & 1 1/4	9/32	10 1/2
637A	1 1/8 & 1 5/16	9/32	10 1/2
639	1 1/4 & 1 7/16	3/8	12 1/2
640	1 1/4 & 1 5/8	3/8	12 1/2
640A	1 5/16 & 1 1/2	3/8	12 1/2



# WILLIAMS

## WILLIAMS' CONSTRUCTION WRENCHES

Carbon Steel

15° Angle—Straight Handle



Deep opening provides substantial bearing on square nuts. The long handle is round for the greater part of its length, with tapered end.

Drop-forged and hardened. Smooth shot-blasted finish, head faces not bright. Sizes stamped on heads.

No.	Nominal Opening	Thickness Head	Overall Length
201A	7/16	11/32	9 1/2
201	1/2	11/32	9 1/2
201B	9/16	11/32	9 1/2
202	19/32	11/32	9 1/2
203A	5/8	7/16	12
203	11/16	7/16	12
204A	3/4	7/16	12
204	25/32	7/16	12
205A	13/16	17/32	14 1/2
205	7/8	17/32	14 1/2
206	15/16	17/32	14 1/2
206B	1	17/32	14 1/2
207	1 1/16	5/8	17
207A	1 1/8	5/8	17
208	1 1/4	11/16	19
208A	1 5/16	11/16	19
209	1 7/16	3/4	21
209A	1 1/2	3/4	21
210	1 5/8	27/32	23
210A	1 11/16	27/32	23
211	1 13/16	15/16	25
211A	1 7/8	15/16	25
212	2	15/16	25

15° Angle—45° Bent Handle



Particularly useful on flange and pipe line work in refineries, chemical plants and industries using processing equipment.

Drop-forged and hardened. Smooth shot-blasted finish, head faces not bright. Sizes stamped on heads.

No.	Nominal Opening	Thickness Head	Overall Length
X-205A	13/16	17/32	14
X-205	7/8	17/32	14
X-206	15/16	17/32	14
X-206B	1	17/32	14
X-207	1 1/16	5/8	16 1/2
X-207A	1 1/8	5/8	16 1/2
X-208	1 1/4	11/16	18 1/2
X-208A	1 5/16	11/16	18 1/2
X-209	1 7/16	3/4	20 3/8
X-209A	1 1/2	3/4	20 3/8
X-210	1 5/8	27/32	22 1/4
X-210A	1 11/16	27/32	22 1/4
X-211	1 13/16	15/16	24
X-211A	1 7/8	15/16	24
X-212	2	15/16	24

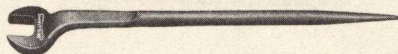
15° Angle—90° Bent Handle



No.	Nominal Opening	Thickness Head	Overall Length
Z-205A	13/16	17/32	12
Z-205	7/8	17/32	12
Z-206	15/16	17/32	12
Z-206B	1	17/32	12
Z-207	1 1/16	5/8	14 5/8
Z-207A	1 1/8	5/8	14 5/8
Z-208	1 1/4	11/16	16 3/8
Z-208A	1 5/16	11/16	16 3/8
Z-209	1 7/16	3/4	17 7/8
Z-209A	1 1/2	3/4	17 7/8
Z-210	1 5/8	27/32	19 1/2
Z-210A	1 11/16	27/32	19 1/2
Z-211	1 13/16	15/16	21
Z-211A	1 7/8	15/16	21
Z-212	2	15/16	21

# WILLIAMS

## WILLIAMS' STRUCTURAL WRENCHES Carbon Steel Straight Opening



Jaws are narrow and long, providing substantially full bearing on square nuts. The long handle is round for the greater part of its length, with tapered end.

Drop-forged and hardened. Smooth shot-blasted finish, head faces not bright. Sizes stamped on heads.

No.	Nominal Opening	Thick-ness Head	Handle Offset At Head	Overall Length
901A	7/16	11/32	13/16	9 1/2
901	1/2	11/32	13/16	9 1/2
901B	9/16	11/32	13/16	9 1/2
902	19/32	11/32	13/16	9 1/2
903A	5/8	7/16	7/8	12
903	11/16	7/16	7/8	12
904A	3/4	7/16	7/8	12
904	25/32	7/16	7/8	12
905A	13/16	17/32	1	14 1/2
905	7/8	17/32	1	14 1/2
906	15/16	17/32	1	14 1/2
906B	1	17/32	1	14 1/2
907	1 1/16	5/8	1 1/8	17
907A	1 1/8	5/8	1 1/8	17
908	1 1/4	11/16	1 1/4	19
908A	1 5/16	11/16	1 1/4	19
909	1 7/16	3/4	1 3/8	21
909A	1 1/2	3/4	1 3/8	21
910	1 5/8	13/16	1 1/2	23
910A	1 11/16	13/16	1 1/2	23
911	1 13/16	7/8	1 5/8	25
911A	1 7/8	7/8	1 5/8	25
912	2	7/8	1 5/8	25

## WILLIAMS' HEAVY "S" or CAR WRENCHES Carbon Steel Double Head—22-1/2° Angle



Drop-forged and hardened, Smooth shot-blasted finish, head faces not bright. Sizes stamped on heads.

No.	Nominal Openings	Thick-ness Heads	Overall Length
367A	5/8 & 13/16	7/16	12
367	11/16 & 7/8	7/16	12
370C	13/16 & 7/8	1/2	19
370A	13/16 & 1	1/2	19
370	7/8 & 1 1/16	1/2	19
370B	1 & 1 1/8	1/2	19
372A	1 1/16 & 1 1/4	1/2	20
373	1 1/8 & 1 5/16	1/2	20
376A	1 1/4 & 1 7/16	9/16	21
376	1 5/16 & 1 1/2	9/16	21
378A	1 7/16 & 1 5/8	9/16	22
379	1 1/2 & 1 11/16	9/16	22
382A	1 5/8 & 1 13/16	5/8	23
382	1 11/16 & 1 7/8	5/8	23
383B	1 7/8 & 2 1/4	5/8	24
385	1 13/16 & 2	5/8	24
389	2 & 2 3/8	3/4	25
389B	2 3/16 & 2 3/8	3/4	25



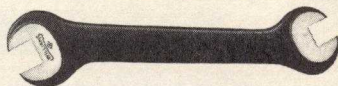
# WILLIAMS

## WILLIAMS' SET SCREW WRENCHES Carbon Steel

Single Head—22-1/2° Angle



Double Head—22-1/2° Angle



For Set Screws, Square Cap Screws and Nuts

Drop-forged and hardened. Smooth black enameled finish, head faces bright. Sizes stamped on heads.

No.	Nominal Opening	Thick-ness Head	Overall Length
500	3/16	7/32	3
501	1/4	9/32	3 1/2
502	5/16	11/32	4 1/4
503	3/8	3/8	5
504	7/16	13/32	5 3/4
505	1/2	15/32	6 5/8
506	9/16	17/32	7 1/2
507	5/8	19/32	8 1/2
508	3/4	21/32	9 1/2
509	7/8	23/32	10 1/2
510	1	25/32	11 1/2
511	1 1/8	27/32	12 1/2

No.	Nominal Openings	Thick-ness Heads	Overall Length
523	3/16 & 1/4	1/4	3 1/2
524	3/16 & 5/16	5/16	4 1/4
525	1/4 & 5/16	5/16	4 1/4
526	1/4 & 3/8	3/8	5
527	5/16 & 3/8	3/8	5
529	3/8 & 7/16	13/32	5 3/4
530	3/8 & 1/2	15/32	5 7/8
531	7/16 & 1/2	15/32	5 7/8
533	1/2 & 9/16	17/32	7 1/2
534	1/2 & 5/8	19/32	8 1/2
535	9/16 & 5/8	19/32	8 1/2
537	5/8 & 3/4	21/32	9 3/4
539	3/4 & 7/8	23/32	9 11/16
541	7/8 & 1	25/32	12 1/2
543	1 & 1 1/8	27/32	14

## TOOL POST WRENCHES Carbon Steel For Set Screws



## SQUARE BOX WRENCHES Carbon Steel Single Head—22-1/2° Angle



For Set Screws,  
Square Cap Screws and Nuts

Drop-forged and hardened. Smooth black enameled finish, head faces bright. Sizes stamped on heads.

No.	For Set Screw Size		Thick-ness Head	Overall Length
	Open End	Closed End		
554	7/16	7/16	1/2	5 1/2
555	1/2	1/2	9/16	6
555B	9/16	1/2	9/16	6
555C	9/16	9/16	9/16	6
556	5/8	5/8	5/8	7
556B	11/16	5/8	5/8	7
556C	11/16	11/16	5/8	7
557	3/4	3/4	11/16	7 5/8

No.	Nominal Opening	Thick-ness Head	Overall Length
580	3/16	1/4	3
581	1/4	9/32	3 3/8
582	5/16	5/16	3 3/4
583	3/8	3/8	4 1/4
584	7/16	7/16	4 7/8
585	1/2	15/32	5 1/2
586	9/16	1/2	6 1/4
587	5/8	9/16	7
588	3/4	5/8	8
589	7/8	11/16	9
590	1	3/4	10

8-point openings furnished to order.

# WILLIAMS

## WILLIAMS' HEX-BOX WRENCHES

### Carbon Steel

#### Regular Pattern—15° Angle



#### Heavy Pattern—15° Angle



Drop-forged and hardened. Smooth black enameled finish, head faces bright. Sizes stamped on heads.

Designed for use requiring an exceedingly strong tool and where head clearance is limited. Wrenches larger than No. 810 and H-809 have tapered handle.

Handle can be bent above head at angles of 45° to 90° from opening, at an additional charge.

No.	Nominal Opening Across Flats	Head		Overall Length
		Thick-ness	Out-side Diam.	
800	13/32	7/32	45/64	3 1/2
801A	7/16	17/64	27/32	4
801	1/2	17/64	27/32	4
802A	9/16	5/16	61/64	4 7/8
802	19/32	5/16	61/64	4 7/8
803A	5/8	23/64	1 3/32	5 7/8
803	11/16	23/64	1 3/32	5 7/8
804A	3/4	13/32	1 1/4	6 7/8
804	25/32	13/32	1 1/4	6 7/8
805A	13/16	29/64	1 23/64	7 3/4
805	7/8	29/64	1 23/64	7 3/4
806	15/16	1/2	1 35/64	8 3/4
806B	1	1/2	1 35/64	8 3/4
807	1 1/16	9/16	1 25/32	9 7/8
807A	1 1/8	9/16	1 25/32	9 7/8
808	1 1/4	9/16	2 1/16	11 1/2
808A	1 5/16	9/16	2 1/16	11 1/2
809	1 7/16	21/32	2 3/8	13 3/8
809A	1 1/2	21/32	2 3/8	13 3/8
810	1 5/8	3/4	2 5/8	15 1/4
810A	1 11/16	3/4	2 5/8	15 1/4
811	1 13/16	13/16	2 25/32	17 1/8
811A	1 7/8	13/16	2 29/32	17 1/8
812	2	15/16	3 1/4	19
813	2 3/16	1	3 31/64	21
813A	2 1/4	1	3 31/64	21
814	2 3/8	1 1/16	3 23/32	23
815	2 9/16	1 1/8	4 3/32	25
815A	2 5/8	1 1/8	4 3/32	25
816	2 3/4	1 1/4	4 9/16	27
817A	3	1 3/8	4 53/64	30
817	3 1/8	1 3/8	4 53/64	30
818A	3 3/8	1 1/2	5 1/4	34
818	3 1/2	1 1/2	5 1/4	34
819B	3 3/4	1 5/8	5 7/8	38
819	3 7/8	1 5/8	5 7/8	38
819AC	4 1/8	1 3/4	6 1/2	42
819A	4 1/4	1 3/4	6 1/2	42
820B	4 1/2	1 7/8	7	46
820	4 5/8	1 7/8	7	46

No.	Nominal Openings Across Flats	Head		Overall Length
		Thick-ness	Outside Diam.	
H808	1 1/4	13/16	2 1/16	11 1/2
H808A	1 5/16	13/16	2 1/16	11 1/2
H809	1 7/16	15/16	2 3/8	13 3/8
H809A	1 1/2	15/16	2 3/8	13 3/8
H810	1 5/8	1 1/8	2 5/8	15 1/4
H810A	1 11/16	1 1/8	2 5/8	15 1/4
H811	1 13/16	1 1/4	2 15/16	17
H811A	1 7/8	1 1/4	2 15/16	17
H812	2	1 3/8	3 1/4	19
H813	2 3/16	1 1/2	3 1/2	21
H813A	2 1/4	1 1/2	3 1/2	21
H814	2 3/8	1 5/8	3 3/4	23
H815	2 9/16	1 3/4	4 1/8	25
H815A	2 5/8	1 3/4	4 1/8	25
H816	2 3/4	1 7/8	4 9/16	27
H817A	3	2	4 13/16	30
H817	3 1/8	2	4 13/16	30

### Carbon Steel

#### Striking Face Pattern—15° Angle



Designed for heavy work in close quarters where large nuts must be set up tight, or frozen nuts loosened.

No.	Nominal Opening Across Flats	Head		Overall Length
		Thick-ness	Out-side Dia.	
SF-818A	3 3/8	1 1/2	5 1/4	18
SF-818	3 1/2	1 1/2	5 1/4	18
SF-819B	3 3/4	1 5/8	5 7/8	19
SF-819	3 7/8	1 5/8	5 7/8	19
SF-819AC	4 1/8	1 3/4	6 1/2	20
SF-819A	4 1/4	1 3/4	6 1/2	20
SF-820B	4 1/2	1 7/8	7	21
SF-820	4 5/8	1 7/8	7	21



# WILLIAMS

## WILLIAMS' T-HANDLE SOCKET WRENCHES Carbon Steel



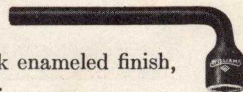
Drop-forged and hardened. Smooth black enameled finish, head faces bright. Sizes stamped on shanks.

Special broaching to order in reasonable quantities.

Hexagon end of shank is designed for use in combination with another wrench. Pin can be removed by driving through.

Wrenches of shorter or longer lengths than stated in table can be furnished to order in quantities.

## WILLIAMS' OFFSET SOCKET WRENCHES Carbon Steel



No.	Nominal Opening Across Flats	Diam. of Head	Overall Length
-----	------------------------------	---------------	----------------

### HEXAGON OPENINGS

961A	5/16	1/2	4 1/4
962D	3/8	5/8	4 1/2
963A	13/32	11/16	4 7/8
963D	7/16	11/16	4 7/8
964A	1/2	3/4	5 1/4
965D	9/16	7/8	5 3/4
965A	19/32	7/8	5 3/4
966D	5/8	1	6 1/8
967A	11/16	1 1/8	6 1/2
967D	3/4	1 1/8	6 1/2
968A	25/32	1 1/4	7
968D	13/16	1 1/4	7
969A	7/8	1 3/8	7 3/8
970S	15/16	1 1/2	7 7/8
970D	1	1 1/2	7 7/8
971A	1 1/16	1 5/8	8 1/4
971D	1 1/8	1 5/8	8 1/4
973A	1 1/4	1 7/8	9 1/8
973B	1 5/16	1 7/8	9 1/8
975A	1 7/16	2 1/8	10
975D	1 1/2	2 1/8	10
976A	1 5/8	2 3/8	10 3/8
976B	1 11/16	2 3/8	10 3/8
977A	1 13/16	2 5/8	10 7/8
977B	1 7/8	2 5/8	10 7/8
978A	2	2 7/8	11 3/8
979A	2 3/16	3	11 7/8
979B	2 1/4	3	11 7/8
980A	2 3/8	3 5/16	12 1/2

### SQUARE OPENINGS

961H	3/16	1/2	4 1/4
961J	1/4	1/2	4 1/4
962H	5/16	5/8	4 1/2
963H	3/8	11/16	4 7/8
965H	7/16	7/8	5 3/4
966H	1/2	1	6 1/8
967H	9/16	1 1/8	6 1/2
968H	5/8	1 1/4	7
968P	11/16	1 1/4	7
969H	3/4	1 3/8	7 3/8
971H	7/8	1 5/8	8 1/4
973H	1	1 7/8	9 1/8
974H	1 1/8	2	9 1/2
976H	1 1/4	2 3/8	10 3/8
977X	1 7/16	2 5/8	10 7/8
977P	1 1/2	2 5/8	10 7/8

No.	Nominal Opening Across Flats	Diam. of Head	Handle Offset in Clear from Face of Wrench	Overall Length
-----	------------------------------	---------------	--	----------------

### HEXAGON OPENINGS

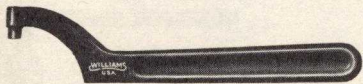
261A	5/16	1/2	13/16	3 3/8
262D	3/8	5/8	1	3 7/8
263A	13/32	11/16	1 1/16	4 5/16
263D	7/16	11/16	1 1/16	4 5/16
264A	1/2	3/4	1 1/4	5 1/8
265D	9/16	7/8	1 7/16	5 7/8
265A	19/32	7/8	1 7/16	5 7/8
266D	5/8	1	1 9/16	6 1/4
267A	11/16	1 1/8	1 5/8	6 3/4
267D	3/4	1 1/8	1 5/8	6 3/4
268A	25/32	1 1/4	1 13/16	7 1/2
268D	13/16	1 1/4	1 13/16	7 1/2
269A	7/8	1 3/8	2	8 3/8
270S	15/16	1 1/2	2 3/16	9 1/8
270D	1	1 1/2	2 3/16	9 1/8
271A	1 1/16	1 5/8	2 3/8	10
271D	1 1/8	1 5/8	2 3/8	10
273A	1 1/4	1 7/8	2 3/4	11 5/8
273B	1 5/16	1 7/8	2 3/4	11 5/8
275A	1 7/16	2 1/8	3 1/8	13 1/4
275D	1 1/2	2 1/8	3 1/8	13 1/4
276A	1 5/8	2 3/8	3 1/2	14 7/8
276B	1 11/16	2 3/8	3 1/2	14 7/8
277A	1 13/16	2 5/8	3 7/8	16 1/2
277B	1 7/8	2 5/8	3 7/8	16 1/2
278A	2	2 7/8	4 3/8	18 1/4
279A	2 3/16	3	4 7/8	20
279B	2 1/4	3	4 7/8	20
280A	2 3/8	3 5/16	5 3/8	21 3/4

### SQUARE OPENINGS

261J	1/4	1/2	13/16	3 3/8
262H	5/16	5/8	1	3 7/8
263H	3/8	11/16	1 1/16	4 5/16
265H	7/16	7/8	1 7/16	5 7/8
266H	1/2	1	1 9/16	6 1/4
267H	9/16	1 1/8	1 5/8	6 3/4
268H	5/8	1 1/4	1 13/16	7 1/2
268P	11/16	1 1/4	1 13/16	7 1/2
269H	3/4	1 3/8	2	8 3/8
271H	7/8	1 5/8	2 3/8	10
273H	1	1 7/8	2 3/4	11 5/8
274H	1 1/8	2	2 7/8	12 3/8
276H	1 1/4	2 3/8	3 1/2	14 7/8

# WILLIAMS

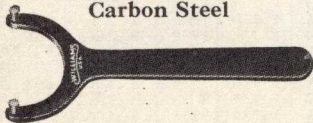
## WILLIAMS' PIN SPANNERS Carbon Steel



Pins are forged integral with wrench. Surfaces smoothed, pins milled, hardened all over and black enameled.

No.	For Circle Diameter	Finished Diam. Pin	Overall Length
452	1	3/16	4
453	1 1/4	13/64	4 1/2
454	1 1/2	7/32	5
455	1 3/4	15/64	5 1/2
456	2	1/4	6
457	2 1/4	17/64	6 1/2
458	2 1/2	9/32	7
459	2 3/4	19/64	7 1/2
460	3	5/16	8
461	3 1/4	21/64	8 1/2
462	3 1/2	11/32	9
463	3 3/4	23/64	9 1/2
464	4	3/8	10
466	5	7/16	12
468	6	1/2	14

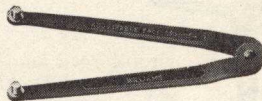
## FACE SPANNERS Carbon Steel



Pins are forged integral with wrench. Surfaces smoothed, pins milled, hardened all over and black enameled.

No.	Pins			Length from Center of Pins
	Distance C to C	Diam. Milled	Length	
418	1	3/16	3/16	4 1/2
420	1 1/4	7/32	7/32	5
422	1 1/2	7/32	7/32	5 1/2
424	1 3/4	7/32	7/32	6
426	2	1/4	1/4	6 1/2
428	2 1/4	1/4	1/4	7
430	2 1/2	9/32	9/32	7 1/2
432	2 3/4	9/32	9/32	8
434	3	5/16	5/16	8 1/2
436	3 1/4	5/16	5/16	9 1/8
438	3 1/2	5/16	5/16	9 3/4
440	3 3/4	3/8	3/8	10 3/8
442	4	3/8	3/8	11

## WILLIAMS' ADJUSTABLE FACE SPANNERS Carbon Steel



A desirable and dependable tool for service where Center to Center dimensions vary. Pins milled, surfaces smooth, hardened, black enameled.

No.	Extreme Capacity	Diameter of Pins	Overall Length
482	2	3/16	6 3/8
483	3	1/4	8 1/4
484	4	5/16	10 3/8

## LIGHT HOOK SPANNERS Carbon Steel



### Not Machined

All Hooks 3/8" wide and 7/32" thick. † Length of handle can be varied.

No.	For Circle; Diameter	Hook Length	Diameter Handle	Overall † Length
491	1 3/16	1/16	3/8	6 1/2
493	1 3/4	1/8	3/8	7 1/2
494	2 1/8	1/8	3/8	8
495	2 1/2	1/8	3/8	8 1/4
496	2 3/4	1/8	3/8	8 1/2
497	3	1/8	3/8	8 3/4
498	3 1/2	1/8	3/8	9

## FLAT HOOK SPANNERS Carbon Steel



### Not Machined

No.	Forgings for Circle; Diameter	Forgings will finish for Circles; Diam.	Thick-ness	Overall Length
403	1 1/4	1 to 1 1/4	7/32	4 3/4
404	1 1/2	1 3/8 to 1 5/8	1/4	6
405	2	1 3/4 to 2	1/4	7 1/8
406	2 1/4	2 1/8 to 2 3/8	1/4	8 7/16
407	2 5/8	2 1/2 to 2 3/4	1/4	9 3/4
408	3 1/8	2 7/8 to 3 1/4	5/16	11
409	3 3/4	3 3/8 to 3 7/8	5/16	12
410	4 3/8	4 to 4 1/2	5/16	13
412	5 3/4	5 1/4 to 5 3/4	7/16	15



# WILLIAMS

## WILLIAMS' ADJUSTABLE HOOK SPANNERS Carbon Steel



Surfaces smoothed, black enameled; jaw hardened and tempered. Especially serviceable on spindle bearings of lathes, milling machines and grinding machines.

No.	Capacity for Circles; Diameter	Thick-ness Hook	Depth Hook	Overall Length
471	3/4 to 2	11/32	1/8	6 3/8
472	1 1/4 to 3	13/32	5/32	8 1/8
474	2 to 4 3/4	15/32	3/16	11 3/8
474A	4 1/2 to 6 1/4	15/32	1/4	12 1/8

## WILLIAMS' ADJUSTABLE HOOK SPANNERS Carbon Steel—With Round Pins



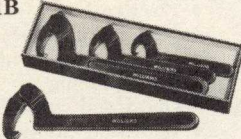
Used for adjusting collars, lock nuts, rings, etc., used on various types of machine tool equipment. Surfaces smoothed, black enameled; alloy steel jaw hardened and tempered.

No.	For Circles, Diameter	Thick. Hook	Pin Size		Overall Length
			Diam.	Lgth.	
O-471	3/4 to 2	11/32	1/8	1/8	6-3/8
O-471A	3/4 to 2	11/32	3/16	5/32	6-3/8
O-472	1-1/4 to 3	13/32	3/16	3/16	8-1/8
O-472A	1-1/4 to 3	13/32	1/4	7/32	8-1/8
O-474	2 to 4-3/4	15/32	1/4	1/4	11-3/8
O-474A	4-1/2 to 6-1/4	15/32	3/8	1/4	12-1/8

## ADJUSTABLE HOOK SPANNERS Carbon Steel

### SET No. 401B In Cardboard Box

One each, Nos. 471, 472, 474 and 474A.



## HOOK SPANNERS Carbon Steel

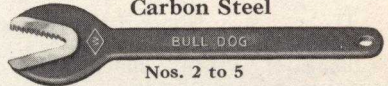


Made especially to service Face Plate Draw Nuts used on taper-nose spindles for new design lathes. Very efficient; also, for general work. Supplied with bearing pads and hook machined, hardened, black enameled.

\* Can be furnished to order for circle 1/8" larger.

No.	For Circle; Diameter	For Lathe Spindle No.	Thick-ness, Hook End	Overall Length
410LS	4 15/32	00	5/16	13
412LS	5 1/2	0	7/32	15
414	* 7 3/8	1	5/8	20
415	* 9 1/4	2	11/16	23 1/4
416	*12 1/2	3	3/4	30 3/4

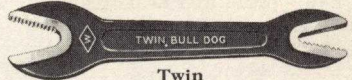
## BULL DOG WRENCHES Carbon Steel



Nos. 2 to 5



No. 1



Twin

Designed for all-around service, these wrenches will grip round, square, hexagon or any shape that will fit between their tough jaws.

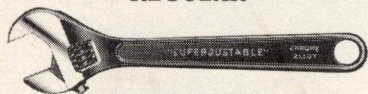
Drop-forged from a specially fine grade of steel and carefully tempered.

No.	Capacity		Overall Length
	Pipe	Rounds	
1	1/8 to 3/8	1/4 to 3/4	5-1/2
2	1/4 to 3/4	1/2 to 1	9
2-1/2	3/8 to 1	5/8 to 1-1/4	12-1/2
3	1/2 to 1-1/4	3/4 to 1-1/2	16
3-1/2	1/2 to 1-1/2	3/4 to 1-3/4	18-3/4
4	3/4 to 2	1 to 2-1/4	22
4-1/2	1 to 2-1/2	1-1/4 to 2-3/4	24
5	2 to 3	2-1/4 to 3-1/2	27
Twin	1/8 to 3/4	5/16 to 1	10

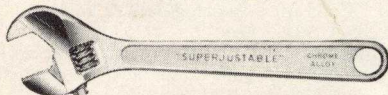
# WILLIAMS

## WILLIAMS' "SUPERJUSTABLE"® WRENCHES Selected Alloy Steel

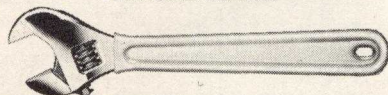
### REGULAR



**BLACK FINISH**



**CHROME FINISH**



**CHROME FINISH  
WITH PLASTIC COVERED HANDLE**

Red Vinyl Plastisol over Plastisol Primer  
Dielectric Strength (Short Time) —400 Volts/Mil.  
(Step by Step)—285 Volts/Mil.  
Dielectric value of these handles is not guaranteed.

The exclusive design of the square shoulders on the shank portion of the sliding jaw provide maximum and positive bearing against working stress. They eliminate entirely the wedging and spreading action, inevitable in wrenches having a cylindrical bearing at this point.

Drop-forged and heat-treated, faces of heads polished bright.

No.		Size Inch	Ca- pacity	Thickness Head	
Plain Handle	Plastic Handle			Tip of Jaws	Ex- treme

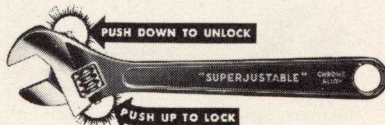
### BLACK FINISH

4B	...	4	1/2	9/64	5/16
6B	...	6	3/4	7/32	3/8
8B	...	8	15/16	17/64	1/2
10B	...	10	1- 1/8	23/64	19/32
12B	...	12	1- 5/16	15/32	23/32
15B	...	15	1- 3/4	19/32	31/32
18B	...	18	2- 1/16	23/32	1- 3/16

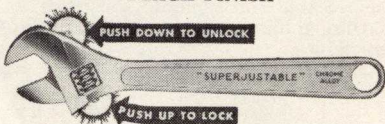
### CHROME FINISH

4	4P	4	1/2	9/64	5/16
6	6P	6	3/4	7/32	3/8
8	8P	8	15/16	17/64	1/2
10	10P	10	1- 1/8	23/64	19/32
12	12P	12	1- 5/16	15/32	23/32
15	15P	15	1- 3/4	19/32	31/32
18	...	18	2- 1/16	23/32	1- 3/16
24	...	24	2- 7/16	7/8	1- 3/8

### LOCKING



**BLACK FINISH**



**CHROME FINISH**

Covered by U.S.A. Patent 2719449

Just a flick of the thumb or finger locks or unlocks the adjustment instantly at any opening you select.

- Positive Lock
- No Obstructions
- Rapid Adjustment
- No Fumbling
- One Hand Operation
- Increased Safety
- Structurally Sound
- Drop-Forged and Heat-Treated
- Selected Alloy Steel
- Chrome Plated Finish

No.	Size Inch	Capacity	Thickness Head	
			Tip of Jaws	Ex- treme

### BLACK FINISH

6BL	6	3/4	7/32	3/8
8BL	8	15/16	17/64	1/2
10BL	10	1- 1/8	23/64	19/32
12BL	12	1- 5/16	15/32	23/32
15BL	15	1- 3/4	19/32	31/32

### CHROME FINISH

6L	6	3/4	7/32	3/8
8L	8	15/16	17/64	1/2
10L	10	1- 1/8	23/64	19/32
12L	12	1- 5/16	15/32	23/32
15L	15	1- 3/4	19/32	31/32



# WILLIAMS

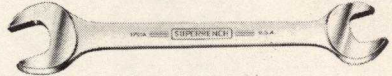
## WILLIAMS' OPEN-END SUPERRENCHES®

### Selected Alloy Steel

#### Single Head—15° Angle



#### Double Head—15° Angle



Drop-forged from Selected Alloy Steel, heat-treated and chrome-plated over nickel, head faces buffed bright.

Handle can be offset above head at angles of 45° to 90° from opening at an additional charge.

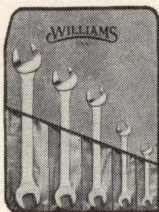
Metric sizes available; see Page 56.

No.	Nominal Opening	Thickness Head	Overall Length
1000	5/16	3/16	3-5/8
1700	3/8	7/32	4-1/8
1000A	13/32	7/32	4-1/8
1701	7/16	1/4	4-3/4
1001	1/2	1/4	4-3/4
1702	9/16	9/32	5-5/8
1002	19/32	9/32	5-5/8
1703	5/8	5/16	6-1/2
1003	11/16	5/16	6-1/2
1704	3/4	11/32	7-3/8
1004	25/32	11/32	7-3/8
1705	13/16	13/32	8-3/8
1005	7/8	13/32	8-3/8
1006	15/16	15/32	9-1/2
1706	1	15/32	9-1/2
1007	1 1/16	17/32	10-3/4
1707	1 1/8	17/32	10-3/4
1008	1 1/4	5/8	12-1/4
1008A	1 5/16	5/8	12-1/4
1009	1 7/16	11/16	13-7/8
1709	1 1/2	11/16	13-7/8
1010	1 5/8	3/4	15-1/2
1010A	1 11/16	3/4	15-1/2
1011	1 13/16	27/32	17-1/8
1011A	1 7/8	27/32	17-1/8
1012	2	29/32	18-7/8
1012A	2 1/16	29/32	18-7/8
1013	2 3/16	31/32	20-3/4
1013A	2 1/4	31/32	20-3/4
1014	2 3/8	1- 1/32	22-3/4
1014A	2 7/16	1- 1/32	22-3/4

No.	Nominal Openings	Thickness Heads	Overall Length
1020	1/4 & 5/16	5/32	3-13/16
1720	5/16 & 11/32	3/16	4- 1/4
1721	5/16 & 3/8	3/16	4- 1/4
1021	5/16 & 13/32	15/64	4- 1/2
1723	3/8 & 7/16	15/64	4-11/16
1023	13/32 & 1/2	7/32	4- 7/8
1723A	3/8 & 1/2	7/32	4- 7/8
1725	7/16 & 1/2	7/32	5- 1/8
1725A	7/16 & 9/16	15/64	5- 5/8
1725B	1/2 & 9/16	1/4	6- 1/4
1025	1/2 & 19/32	1/4	6- 1/4
1727	9/16 & 5/8	17/64	6- 7/8
1027C	9/16 & 11/16	9/32	7- 1/8
1027	13/32 & 11/16	9/32	7- 1/2
1027B	5/8 & 11/16	9/32	7- 1/2
1028	19/32 & 25/32	15/64	8- 1/4
1028S	5/8 & 25/32	19/64	8- 1/4
1729	5/8 & 3/4	19/64	8- 1/4
1029B	11/16 & 3/4	5/16	9
1029	11/16 & 25/32	5/16	9
1029C	11/16 & 13/16	5/16	9
1030	11/16 & 7/8	21/64	9- 3/8
1731	3/4 & 13/16	11/32	9- 3/4
1731A	3/4 & 7/8	11/32	9- 3/4
1031B	25/32 & 13/16	11/32	9- 3/4
1031	25/32 & 7/8	11/32	9- 3/4
1731B	13/16 & 7/8	11/32	9- 3/4
1032B	13/16 & 15/16	3/8	10- 1/2
1033A	7/8 & 15/16	3/8	10- 1/2
1733	7/8 & 1	13/32	11- 3/8
1033C	15/16 & 1	13/32	11- 3/8
1034	7/8 & 1 1/16	13/32	11- 3/8
1034A	15/16 & 1 1/16	13/32	11- 3/8
1035	31/32 & 1 1/16	13/32	11- 3/8
1735	1 & 1 1/8	7/16	12- 1/4
1036B	1 1/16 & 1 1/8	7/16	12- 1/4
1037	1 1/16 & 1 1/4	15/32	13- 1/4
1737	1 1/8 & 1 1/4	15/32	13- 1/4
1037A	1 1/8 & 1 5/16	15/32	13- 1/4
1039B	1 1/4 & 1 5/16	1/2	14- 3/8
1039	1 1/4 & 1 7/16	1/2	14- 3/8
1039A	1 5/16 & 1 7/16	17/32	15- 1/2
1039C	1 3/8 & 1 7/16	17/32	15- 1/2
1040	1 3/4 & 1 5/8	35/64	16- 1/8
1041	1 11/16 & 1 5/8	9/16	16- 5/8
1041B	1 1/2 & 1 5/8	9/16	16- 5/8

## OPEN-END SUPERRENCH® SETS

Selected Alloy Steel  
Double Head—15° Angle



**SET No. 1005SR**  
Leatherette Roll

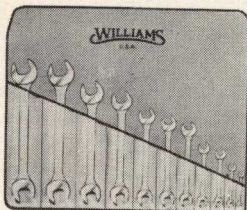
**SET No. 1005SB**  
Cardboard Box

Set consists of 5 Engineers' Pattern "Superrenches", 1 each Nos. 1725, 1727, 1731A, 1033C and 1037 with openings, 7/16, 1/2, 9/16, 5/8, 3/4, 7/8, 15/16, 1, 1-1/16 and 1-1/4". Lengths, 5-5/8 to 12-3/4".

**SET No. 1025AR**  
Leatherette Roll

**SET No. 1025AB**  
Cardboard Box

Set consists of 6 Engineers' Pattern "Superrenches", 1 each Nos. 1723, 1025, 1727, 1029, 1731A and 1033C with openings 3/8, 7/16, 1/2, 19/32, 9/16, 5/8, 11/16, 25/32, 3/4, 7/8, 15/16 and 1". Lengths, 4-7/8 to 10-7/8".



**SET No. 1712AR**  
Leatherette Roll

**SET No. 1712AB**  
Cardboard Box

Contains 11 Engineers' Pattern "Superrenches", 1 each Nos. 1020, 1723, 1025, 1727, 1029, 1731, 1033A, 1735, 1037, 1039A and 1039C with openings, 1/4, 5/16, 3/8, 7/16, 1/2, 19/32, 9/16, 5/8, 11/16, 25/32, 3/4, 13/16, 7/8, 15/16, 1, 1-1/8, 1-1/16, 1-1/4, 1-5/16, 1-1/2, 1-3/8 and 1-7/16". Lengths, 4-1/2 to 14".

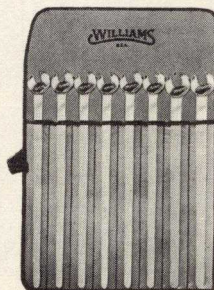
## TAPPET SUPERRENCHES®

Selected Alloy Steel  
Single Head—15° Angle



Extra long for convenient reach over hot manifolds. Slender and light with narrow jaws for easy adjustment. The range of openings—3/8 to 5/8"—provides comprehensive service for practically every make of car, including late models. Drop-forged, heat-treated, chrome plated.

No.	Nominal Openings	Thickness Head	Overall Length
A100C	3/8	3/16	15
A100	7/16	3/16	15
A100A	1/2	3/16	15
A100B	9/16	3/16	15
A101	5/8	3/16	15



**SET No. 106R**  
In Leatherette Roll

Contains 6 Tappet "Superrenches", 2 each of Nos. A-100A, A-100B and A-101 with 1/2, 9/16 and 5/8" openings.

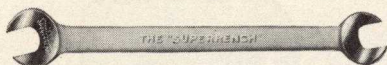
**SET No. 108R**  
In Leatherette Roll

Contains 8 Tappet "Superrenches", 2 each Nos. A-100, A-100A, A-100B, A-101; 7/16, 1/2, 9/16 and 5/8" opngs.



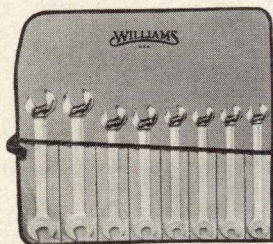
## TAPPET SUPERRENCHES®

Selected Alloy Steel  
Double Head—15° Angle



Specially designed for tappet adjustment. Drop-forged from Selected Alloy Steel, heat-treated and chrome-plated over nickle, head faces buffed bright.

No.	Openings and Tappet Sizes	Thickness Heads	Overall Length
1090A	3/8 & 7/16	5/32	8
1090	7/16 & 1/2	5/32	8
1090G	7/16 & 17/32	5/32	8
1090D	1/2 & 9/16	5/32	8
1092	9/16 & 5/8	3/16	8
1092F	5/8 & 11/16	3/16	8
1094G	3/4 & 13/16	7/32	9
1094	3/4 & 7/8	7/32	9
1096	15/16 & 1	7/32	9



### SET No. 1032R In Leatherette Roll

Contains 2 each Nos. 1090, 1090D and 1092F, covering every tappet size from 7/16 to 11/16".

### SET No. 1042R In Leatherette Roll

Contains 2 each Nos. 1090, 1090D, 1092F and 1094. Covers every tappet size from 7/16 to 7/8".

## CONSTRUCTION SUPERRENCHES®

Selected Alloy Steel  
15° Angle

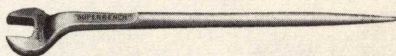


Drop-forged from Selected Alloy Steel, heat-treated and finished in baked gray enamel all over.

No.	Nominal Opening	Thickness Head	Overall Length
1205	7/8	17/32	14-1/2
1206B	1	17/32	14-1/2
1207	1- 1/16	5/8	17
1207A	1- 1/8	5/8	17
1208	1- 1/4	11/16	19
1208A	1- 5/16	11/16	19
1209	1- 7/16	3/4	21
1209A	1- 1/2	3/4	21
1210	1- 5/8	27/32	23
1211	1-13/16	15/16	25
1212	2	15/16	25

## STRUCTURAL SUPERRENCHES®

Selected Alloy Steel  
Straight Opening



Drop-forged from Selected Alloy Steel, heat-treated and finished in baked gray enamel all over.

No.	Nominal Opening	Thickness Head	Handle Offset At Head	Overall Length
1905	7/8	17/32	1	14-1/2
1906B	1	17/32	1	14-1/2
1907	1- 1/16	5/8	1-1/8	17
1907A	1- 1/8	5/8	1-1/8	17
1908	1- 1/4	11/16	1-1/4	19
1908A	1- 5/16	11/16	1-1/4	19
1909	1- 7/16	3/4	1-3/8	21
1909A	1- 1/2	3/4	1-3/8	21
1910	1- 5/8	13/16	1-1/2	23
1910A	1-11/16	13/16	1-1/2	23
1911	1-13/16	7/8	1-5/8	25
1911A	1- 7/8	7/8	1-5/8	25
1912	2	7/8	1-5/8	25

## WILLIAMS' OPEN END-BOX SUPERRENCHES®

Selected Alloy Steel

15° Angle

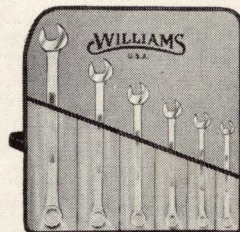


The new long, slender design of these "Superrenches" offer exceptional balance and increase efficiency where clearance is limited.

In this new design, handles are longer and thinner—heads are slimmer. The thin, slim jaws of the open end have an opening angle of 15°.

Box end, with 12-point opening and thin walls, is offset from plane of handle; see illustration.

Drop-forged from tough Selected Alloy Steel, heat-treated and chrome-plated with faces of open end buffed bright.



**SET No.1170SR**

**In**

**Leatherette Roll**

**SET No.1170SB**

**In**

**Cardboard Box**

Set contains 6 Open End-Box "Superrenches", 1 each Nos. 1161, 1162, 1163, 1164, 1166 and 1167 with openings, 7/16, 1/2, 9/16, 5/8, 3/4 and 7/8".

**SET No.1171SR**

**In**

**Leatherette Roll**

**SET No.1171SB**

**In**

**Cardboard Box**

Set contains 7 Open End-Box "Superrenches", 1 each Nos. 1162, 1163A, 1165, 1166A, 1167, 1171 and 1173 with openings, 1/2, 19/32, 11/16, 25/32, 7/8, 1-1/16 and 1-1/4".

**SET No.1172SR**

**In**

**Leatherette Roll**

**SET No.1172SB**

**In**

**Cardboard Box**

Contains 18 Open End-Box "Superrenches", 1 each Nos. 1159 to 1173 inclusive with openings, 5/16, 11/32, 3/8, 7/16, 1/2, 9/16, 19/32, 5/8, 11/16, 3/4, 25/32, 7/8, 13/16, 15/16, 1, 1-1/16, 1-1/8 and 1-1/4".

**SET No.1173SR**

**In**

**Leatherette Roll**

**SET No.1173SB**

**In**

**Cardboard Box**

Set contains 7 Open End-Box "Superrenches", 1 each Nos. 1159, 1159A, 1160, 1161, 1162, 1163 and 1164 with openings, 5/16, 11/32, 3/8, 7/16, 1/2, 9/16 and 5/8".

No.	Nominal Openings	Open End Thick.	Box End Diam.	Overall Length
1158	1/4 & 1/4	5/32	13/32	5
1159	5/16 & 5/16	3/16	33/64	5- 1/2
1159A	11/32 & 11/32	13/64	37/64	6
1160	3/8 & 3/8	13/64	37/64	6
1161	7/16 & 7/16	7/32	21/32	6- 5/8
1162	1/2 & 1/2	1/4	47/64	7- 3/16
1163	9/16 & 9/16	9/32	53/64	7-15/16
1163A	19/32 & 19/32	19/64	59/64	8- 3/4
1164	5/8 & 5/8	19/64	59/64	8- 3/4
1165	11/16 & 11/16	5/16	1- 1/64	9- 5/8
1166	3/4 & 3/4	11/32	1- 1/64	10- 5/8
1166A	25/32 & 25/32	23/64	1-11/64	11- 9/16
1167A	13/16 & 13/16	23/64	1-11/64	11- 9/16
1167	7/8 & 7/8	3/8	1- 1/4	12-11/16
1168	15/16 & 15/16	25/64	1-21/64	13- 7/8
1170	1 & 1	13/32	1-27/64	15- 1/8
1171	1 1/16 & 1 1/16	27/64	1- 1/2	16- 1/4
1172	1 1/8 & 1 1/8	7/16	1- 9/16	17- 7/16
1173	1 1/4 & 1 1/4	15/32	1-25/32	18-11/16
1174	1 5/16 & 1 5/16	1/2	1-27/32	20
1176A	1 3/8 & 1 3/8	9/16	2- 3/32	21- 5/16
1176	1 7/8 & 1 7/8	9/16	2- 3/32	21- 5/16
1178	1 1/2 & 1 1/2	9/16	2- 3/32	21- 5/16
1180	1 5/8 & 1 5/8	5/8	2- 5/16	22- 3/4

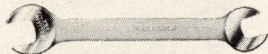


# WILLIAMS

## WILLIAMS' MIDGET SUPERRENCHES® Selected Alloy Steel

These wrenches are unusually thin and slim, but surprisingly tough and strong. Forged from Selected Alloy Steel, heat-treated and chrome-plated over nickel, head faces buffed bright.

### 15° ANGLE OPENING



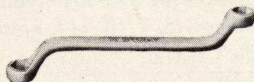
No.	Nominal Openings	Thickness Heads	Extreme Length
1106	13/64 & 7/32	3/32	3
1107	15/64 & 1/4	3/32	3
1108	9/32 & 11/32	1/8	3-1/2
1108A	1/4 & 5/16	1/8	3-1/2
1109	5/16 & 3/8	1/8	3-1/2

### 15 and 75° ANGLE OPENING

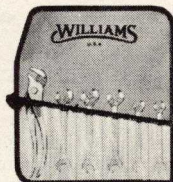


No.	Nominal Openings	Thickness Heads	Extreme Length
1112	3/16 & 3/16	3/32	3
1113	13/64 & 13/64	3/32	3
1114	7/32 & 7/32	3/32	3
1115	15/64 & 15/64	3/32	3
1116	1/4 & 1/4	3/32	3
1118	9/32 & 9/32	1/8	3-3/4
1120	5/16 & 5/16	1/8	3-3/4
1122	11/32 & 11/32	1/8	3-3/4
1124	3/8 & 3/8	1/8	3-3/4
1128	7/16 & 7/16	5/32	4-1/2
1132	1/2 & 1/2	5/32	4-1/2
1136	9/16 & 9/16	3/16	5-1/2
1140	5/8 & 5/8	3/16	5-1/2

### 6-POINT BOX



No.	Nominal Openings	Extreme Length
1150	3/16 & 13/64	2-7/8
1151	7/32 & 15/64	3-1/8
1152	1/4 & 9/32	3-3/8
1153	5/16 & 11/32	3-3/4



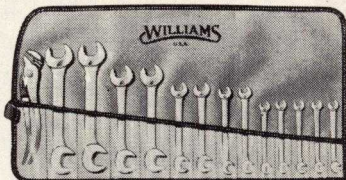
With 1519A Plier  
**SET No. 1149PR**  
Leatherette Roll

Without 1519A Plier  
**SET No. 1149R**  
Leatherette Roll

**SET No. 1149PB**  
Cardboard Box

**SET No. 1149B**  
Cardboard Box

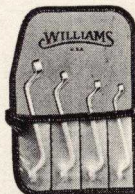
Handy assortment of 5 Midget "Superrenches" Nos. 1106, 1107, 1108, 1108A, 1109 and 1519A plier.



**SET No. 1142 PR**  
Leatherette Roll

**SET No. 1142 PB**  
Cardboard Box

Contains 13 Midget "Superrenches" Nos. 1112, 1113, 1114, 1115, 1116, 1118, 1120, 1122, 1124, 1128, 1132, 1136, 1140 and 1519A plier.



**SET No. 1154SR**  
Leatherette Roll

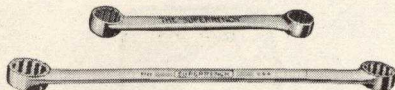
**SET No. 1154 SB**  
Cardboard Box

Contains 4 Midget Box "Superrenches" Nos. 1150, 1151, 1152 and 1153.

# WILLIAMS

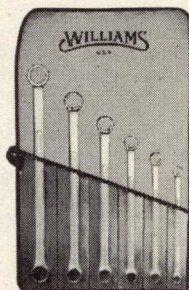
## WILLIAMS' 12-POINT BOX SUPERRENCHES®

Selected Alloy Steel  
15° Angle Offset Pattern



These strong, tough "Superrenches" have thin head walls for use in close quarters. The 12-point openings grip hex nuts on six sides, preventing all slipping and rounding of nuts.

Drop-forged from Selected Alloy Steel, heat-treated and chrome-plated over nickel, heads bright.

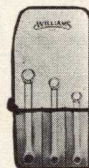


SET No. 7006R SET No. 7006B  
In Leatherette Roll In Cardboard Box

### 6 Long

#### 15° Angle Offset Box Superrenches®

12-point openings 3/8, 7/16, 1/2, 9/16, 19/32, 5/8, 11/16, 25/32, 3/4, 7/8, 15/16 and 1". Lengths, 7-3/4 to 14-3/8".



No. 6703R



No. 9703R

SET No. 6703R SET No. 6703B  
In Leatherette Roll In Cardboard Box

### 3 Short

#### 15° Angle Offset Box Superrenches®

Openings 3/8, 7/16, 1/2, 9/16, 5/8". Lengths, 4-1/2 to 6".

SET No. 9703R SET No. 9703B  
In Leatherette Roll In Cardboard Box

### 3 Short

#### Double Offset Box Superrenches®

Openings 3/8, 7/16, 1/2, 9/16, 5/8". Lengths, 4-1/2 to 6".

No.	Nominal Openings	Diam. Head		Overall Length
		Small	Large	
Long 15° Angle				
7723	$\frac{3}{8}$ & $\frac{7}{16}$	37/64	21/32	7- 3/4
7023	$\frac{13}{32}$ & $\frac{1}{2}$	21/32	47/64	8- 1/16
7725	$\frac{7}{16}$ & $\frac{1}{2}$	21/32	47/64	8- 1/16
7725A	$\frac{7}{16}$ & $\frac{9}{16}$	21/32	53/64	8- 3/8
7725B	$\frac{1}{2}$ & $\frac{9}{16}$	47/64	53/64	8-11/16
7025	$\frac{1}{2}$ & $\frac{19}{32}$	47/64	7/8	9- 1/16
7727	$\frac{9}{16}$ & $\frac{5}{8}$	53/64	29/32	9- 3/8
7027	$\frac{19}{32}$ & $\frac{11}{16}$	29/32	1	9- 3/4
7727A	$\frac{5}{8}$ & $\frac{11}{16}$	29/32	1	9- 3/4
7729	$\frac{5}{8}$ & $\frac{3}{4}$	29/32	1	10- 1/8
7029B	$\frac{11}{16}$ & $\frac{3}{4}$	1	1- 5/64	10- 1/2
7029	$\frac{11}{16}$ & $\frac{25}{32}$	1	1- 1/8	10- 7/8
7729A	$\frac{3}{4}$ & $\frac{25}{32}$	1	1- 1/8	11- 5/8
7030	$\frac{11}{16}$ & $\frac{7}{8}$	1	1- 1/4	11- 1/4
7731A	$\frac{3}{4}$ & $\frac{7}{8}$	1	1- 1/4	12
7031B	$\frac{25}{32}$ & $\frac{13}{16}$	1- 1/8	1-11/64	12- 1/2
7031	$\frac{25}{32}$ & $\frac{7}{8}$	1-11/64	1- 1/4	12- 7/8
7731B	$\frac{13}{16}$ & $\frac{7}{8}$	1-11/64	1- 1/4	12- 7/8
7033A	$\frac{7}{8}$ & $\frac{15}{16}$	1- 1/4	1-21/64	13- 3/8
7733	$\frac{7}{8}$ & 1	1- 1/4	1-13/32	13- 7/8
7033C	$\frac{15}{16}$ & 1	1-21/64	1-13/32	14- 3/8
7034	$\frac{7}{8}$ & $\frac{1}{16}$	1-11/32	1- 1/2	15
7034A	$\frac{15}{16}$ & $\frac{1}{16}$	1-21/64	1- 1/2	15- 1/2
7735	1 & $\frac{1}{8}$	1-13/32	1- 9/16	16
7735A	$\frac{1}{16}$ & $\frac{1}{8}$	1- 1/2	1- 9/16	16- 5/8
7037	$\frac{1}{16}$ & $\frac{1}{4}$	1- 1/2	1-25/32	17- 1/4
7037A	$\frac{1}{8}$ & $\frac{15}{16}$	1- 9/16	1-27/32	18
7039B	$\frac{1}{4}$ & $\frac{15}{16}$	1-25/32	1-27/32	18- 3/4
7039	$\frac{1}{4}$ & $\frac{1}{16}$	1-25/32	2- 3/64	19- 1/2
7039A	$\frac{15}{16}$ & $\frac{1}{2}$	1-27/32	2- 3/32	20- 1/2
7040B	$\frac{17}{16}$ & $\frac{1}{2}$	2- 3/64	2- 3/32	21- 1/2
7041	$\frac{17}{16}$ & $\frac{15}{8}$	2- 3/64	2- 5/16	22- 1/2
7742B	$\frac{1}{2}$ & $\frac{11}{16}$	2- 3/32	2-19/32	22- 3/4

### Short 15° Angle

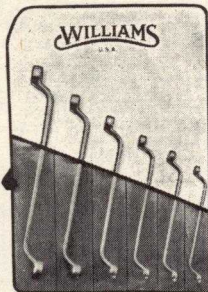
6723	3/8 & 7/16	19/32	11/16	4-1/2
6725	7/16 & 1/2	43/64	3/4	5-1/2
6725A	7/16 & 9/16	23/32	7/8	5-1/2
6725B	1/2 & 9/16	23/32	7/8	5-1/2
6025	1/2 & 19/32	23/32	7/8	5-1/2
6727	9/16 & 5/8	13/16	29/32	6



# WILLIAMS

## WILLIAMS' 12-POINT BOX SUPERRENCHES®

Selected Alloy Steel  
Double Offset Pattern

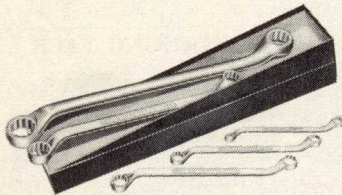


**SET No. 8006R SET No. 8006B**  
In Leatherette Roll In Cardboard Box

**6 Long**

**Double Offset Box Superrenches®**

Openings 3/8, 7/16, 1/2, 9/16, 19/32, 5/8, 11/16, 25/32, 3/4, 7/8, 15/16 and 1". Lengths, 7-3/4 to 14-3/8".



**SET No. 8005AB**

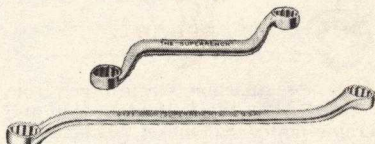
**In**

**Cardboard Box**

**5 Long**

**Double Offset Box  
Superrenches®**

12-point openings 1/2, 19/32, 11/16, 25/32, 7/8, 15/16, 1-1/16, 1-1/4, 1-7/16 and 1-5/8". Lengths, 9-1/16 to 23".



For description—see opposite page.

No.	Nominal Openings	Diam. Head		Overall Length
		Small	Large	

### Long Double Offset

8021	5/16 & 13/32	33/64	5/8	7-1/2
8723	3/8 & 7/16	37/64	21/32	7-3/4
8023	13/32 & 1/2	21/32	47/64	8-1/16
8725	7/16 & 1/2	21/32	47/64	8-1/16
8725A	7/16 & 9/16	21/32	53/64	8-3/8
8725B	1/2 & 9/16	47/64	53/64	8-11/16
8025	1/2 & 19/32	47/64	7/8	9-1/16
8727	9/16 & 5/8	53/64	29/32	9-3/8
8027	19/32 & 11/16	29/32	1	9-3/4
8727A	5/8 & 11/16	29/32	1	9-3/4
8729	5/8 & 3/4	29/32	1-5/64	10-1/8
8029B	11/16 & 3/4	1	1-5/64	10-1/2
8029	11/16 & 25/32	1	1-1/8	10-7/8
8729A	3/4 & 25/32	1-5/64	1-11/64	11-5/8
8030	11/16 & 7/8	1	1-1/4	11-1/4
8731	3/4 & 13/16	1-5/64	1-11/64	11-5/8
8731A	3/4 & 7/8	1-5/64	1-1/4	12
8031B	25/32 & 13/16	1-1/8	1-11/64	12-1/2
8031	25/32 & 7/8	1-11/64	1-1/4	12-7/8
8731B	13/16 & 7/8	1-11/64	1-1/4	12-7/8
8033A	7/8 & 15/16	1-1/4	1-21/64	13-3/8
8733	7/8 & 1	1-1/4	1-13/32	13-7/8
8033C	15/16 & 1	1-21/64	1-13/32	14-3/8
8034	7/8 & 1 1/16	1-1/4	1-1/2	15
8034A	15/16 & 1 1/16	1-21/64	1-1/2	15-1/2
8735	1 & 1 1/8	1-13/32	1-9/16	16
8735A	1 1/16 & 1 1/8	1-1/2	1-9/16	16-5/8
8037	1 1/16 & 1 1/4	1-1/2	1-25/32	17-1/4
8037A	1 1/4 & 1 1/16	1-9/16	1-27/32	18
8039B	1 1/4 & 1 1/16	1-25/32	1-27/32	18-3/4
8039	1 1/4 & 1 1/16	1-25/32	2-3/64	19-1/2
8039A	1 1/16 & 1 1/2	1-27/32	2-3/32	20-1/2

### For Heavy Service

8040B	1 1/16 & 1 1/2	2-11/32	2-11/32	21
8041	1 1/16 & 1 5/8	2-11/32	2-19/32	23
8742B	1 1/2 & 1 11/16	2-11/32	2-19/32	23
8045	1 13/16 & 2	2-57/64	3-9/64	25
8049	2 3/16 & 2 3/8	3-29/64	3-45/64	27
8053	2 3/16 & 2 3/4	3-29/64	4-5/32	30

### Short Double Offset

9723	3/8 & 7/16	19/32	21/32	4-1/2
9725	7/16 & 1/2	21/32	47/64	5
9725A	7/16 & 9/16	47/64	53/64	5-1/2
9725B	1/2 & 9/16	47/64	53/64	5-1/2
9025	1/2 & 15/32	47/64	53/64	5-1/2
9727	3/8 & 5/8	53/64	29/32	6

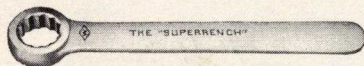
# WILLIAMS

## WILLIAMS' 12-POINT BOX SUPERRENCHES®

Selected Alloy Steel

REGULAR PATTERN, 7-1/2° Angle

OFFSET STRIKING FACE



For close quarters. Drop-forged from Selected Alloy Steel. Heat-treated and chrome-plated over nickel, heads bright.

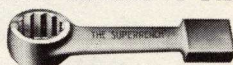
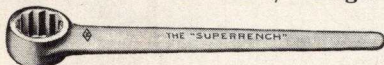
For heavy work where large nuts must be set up tight or frozen nuts loosened. Drop-forged, heat-treated.

No.	Nominal Opening	Head Diameter	Overall Length
1800A	7/16	45/64	3-1/2
1801	1/2	27/32	4
1802A	9/16	61/64	4-7/8
1802	19/32	61/64	4-7/8
1803A	5/8	1- 3/32	5-7/8
1803	11/16	1- 3/32	5-7/8
1804A	3/4	1- 1/4	6-7/8
1804	25/32	1- 1/4	6-7/8
1805A	13/16	1-23/64	7-3/4
1805	7/8	1-23/64	7-3/4
1806	15/16	1-35/64	8-3/4
1806B	1	1-35/64	8-3/4
1807	1- 1/16	1-25/32	9-7/8
1807A	1- 1/8	1-25/32	9-7/8
1808	1- 1/4	2- 1/16	11-1/2
1808A	1- 5/16	2- 1/16	11-1/2
1809	1- 7/16	2- 3/8	13-3/8
1809A	1- 1/2	2- 3/8	13-3/8
1810	1- 5/8	2- 5/8	15-1/4
1810A	1-11/16	2- 5/8	15-1/4
1811	1-13/16	2-29/32	17
1811A	1- 7/8	2-29/32	17
1812	2	3- 1/4	19

No.	Nominal Opening	Head Diameter	Overall Length
8807	1- 1/16	1-11/16	10-1/2
8807A	1- 1/8	1-11/16	10-1/2
8808	1- 1/4	2	11
8808A	1- 5/16	2	11
8809	1- 7/16	2- 3/16	11-1/2
8809A	1- 1/2	2- 3/16	11-1/2
8810	1- 5/8	2- 1/2	12
8810A	1-11/16	2- 1/2	12
8811	1-13/16	2- 3/4	12-1/2
8811A	1- 7/8	2- 3/4	12-1/2
8812	2	3	13-1/2
8813	2- 3/16	3- 3/8	13-1/2
8813A	2- 1/4	3- 3/8	13-1/2
8814	2- 3/8	3-23/32	14
8815	2- 9/16	3-29/32	14-1/2
8815A	2- 5/8	3-29/32	14-1/2
8816	2- 3/4	4- 5/32	15
8816B	2-15/16	4-21/32	16
8817A	3	4-15/16	16-1/2
8817	3- 1/8	4-15/16	16-1/2

### HEAVY PATTERN—7-1/2° Angle

### HEAVY STRIKING FACE



See description above.

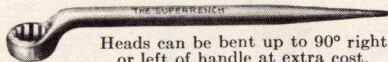
See description above.

No.	Nominal Opening	Head Diameter	Overall Length
H1808	1- 1/4	2- 1/16	11-1/2
H1808A	1- 5/16	2- 1/16	11-1/2
H1809	1- 7/16	2- 3/8	13-3/8
H1809A	1- 1/2	2- 3/8	13-3/8
H1810	1- 5/8	2- 5/8	15-1/4
H1810A	1-11/16	2- 5/8	15-1/4
H1811	1-13/16	2-15/16	17
H1811A	1- 7/8	2-15/16	17
H1812	2	3- 1/4	19
H1813	2- 3/16	3- 1/2	21
H1813A	2- 1/4	3- 1/2	21
H1814	2- 3/8	3- 3/4	23
H1815	2- 9/16	4- 1/8	25
H1815A	2- 5/8	4- 1/8	25
H1816	2- 3/4	4- 9/16	27
H1817A	3	4-13/16	30
H1817	3- 1/8	4-13/16	30

No.	Nominal Opening Across Flats	Head Diameter	Overall Length
SFH-1808	1- 1/4	2- 1/16	7
SFH-1808A	1- 5/16	2- 1/16	7
SFH-1809	1- 7/16	2- 3/8	8-1/4
SFH-1809A	1- 1/2	2- 3/8	8-1/4
SFH-1810	1- 5/8	2- 5/8	9
SFH-1810A	1-11/16	2- 5/8	9
SFH-1811	1-13/16	2-15/16	10
SFH-1811A	1- 7/8	2-15/16	10
SFH-1812	2	3- 1/4	11
SFH-1813	2- 3/16	3- 1/2	12
SFH-1813A	2- 1/4	3- 1/2	12
SFH-1814	2- 3/8	3- 3/4	13
SFH-1815	2- 9/16	4- 1/8	14
SFH-1815A	2- 5/8	4- 1/8	14
SFH-1816	2- 3/4	4- 9/16	15
SFH-1817A	3	4-13/16	17
SFH-1817	3- 1/8	4-13/16	17



## STRUCTURAL BOX SUPERRENCHES® Selected Alloy Steel 12-Point Openings

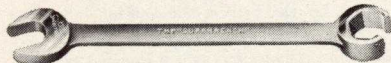


Heads can be bent up to 90° right or left of handle at extra cost.

Drop-forged heat-treated and finished in baked gray enamel all over.

No.	Nominal Opening	Head Diam.	Handle Offset	
			At Head	At End
8905A	13/16	1-11/32	1- 1/8	1-25/32
8905	7/8	1-11/32	1- 1/8	1-25/32
8906	15/16	1- 1/2	1- 1/4	1-61/64
8906B	1	1- 1/2	1- 1/4	1-61/64
8907	1- 1/16	1-11/16	1- 5/16	2- 9/64
8907A	1- 1/8	1-11/16	1- 5/16	2- 9/64
8908	1- 1/4	2	1- 7/16	2-21/64
8908A	1- 5/16	2	1- 7/16	2-21/64
8909	1- 7/16	2- 3/16	1- 1/2	2- 3/4
8909A	1- 1/2	2- 3/16	1- 1/2	2- 3/4
8910	1- 5/8	2- 1/2	1- 5/8	2- 7/8
8910A	1-11/16	2- 1/2	1- 5/8	2- 7/8
8911	1-13/16	2- 3/4	1-11/16	3
8911A	1- 7/8	2- 3/4	1-11/16	3
8912	2	3	1-13/16	3- 5/32
8913	2- 3/16	3- 3/8	2	3- 1/2
8914	2- 3/8	3-23/32	2- 1/8	3-11/16
8915	2- 9/16	3-29/32	2- 1/4	3-13/16
8916	2- 3/4	4- 5/32	2- 3/8	3-29/32

## FLARE NUT SUPERRENCHES® Selected Alloy Steel

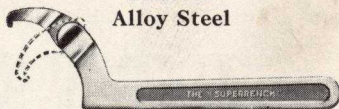


Open-box end, has a 6-point opening with a tube opening slot at 22-1/2° to the axis of the handle.

Open end is thin, with slim jaws. Drop-forged, heat-treated and chrome-plated, heads buffed.

No.	Nominal Opening	OPEN BOX END		Overall Length
		Outside Diam.	Max. Tube Clearance	
1312	3/8	21/32	1/4	5-5/8
1314	7/16	25/32	9/32	6
1316	1/2	29/32	3/8	6-3/8
1318	9/16	31/32	7/16	6-7/8
1320	5/8	1- 1/64	15/32	7-5/8
1322	11/16	1- 9/32	9/16	8-3/4
1324	3/4	1- 9/32	9/16	8-3/4
1328	7/8	1- 7/16	11/16	9-1/4
1332	1	1-19/32	3/4	9-7/8
1334	1-1/16	1-25/32	27/32	10-3/4
1336	1-1/8	1-25/32	27/32	10-3/4

## ADJUSTABLE HOOK SPANNERS Selected Alloy Steel



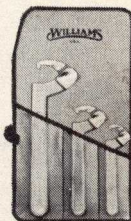
Drop-forged, heat-treated, and chrome-plated, jaw face buffed. Sold individually and in sets listed below.

No.	Capacity for Circles, Diameter	Hook		Overall Length
		Thick.	Depth	
1471	3/4 to 2	11/32	1/8	6-3/8
1472	1-1/4 to 3	13/32	5/32	8-1/8
1474	2 to 4-3/4	15/32	3/16	11-3/8

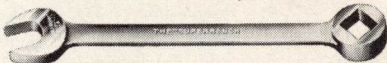
### SET No. 1400R In Leatherette Roll

### SET No. 1400B In Cardboard Box

Contains one each  
Nos. 1471, 1472 and 1474.



## TOOL POST SUPERRENCHES® Selected Alloy Steel



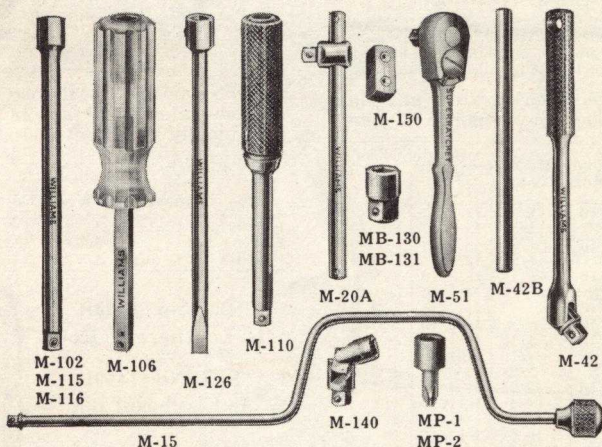
### For Nuts and Set Screws

Jaws of open end have opening angle of 15°. Box end opening is offset 15° from plane of handle. Drop-forged from Selected Alloy Steel, heat-treated and chrome-plated, heads buffed.

No.	Open End		Box End		Overall Lgth.
	Nominal Opng.	Head Thickness	Nominal Opng.	Head Thickness	
1562	11/16	5/16	9/16	9/16	8-3/4
1562A	3/4	5/16	9/16	9/16	8-3/4
1563B	7/8	11/32	1/2	5/8	9-1/4
1563D	7/8	11/32	5/8	5/8	9-1/4
1563E	7/8	11/32	3/4	5/8	9-1/4
1564	1-1/16	3/8	5/8	11/16	9-7/8
1564C	1	3/8	5/8	11/16	9-7/8
1565	1-1/16	7/16	3/4	3/4	10-3/4
1565C	1	7/16	3/4	3/4	10-3/4
1566	1-1/4	7/16	3/4	3/4	10-3/4

## 1/4 Inch Square Drive MIDGET SUPERSOCKET® WRENCHES Selected Alloy Steel HANDLES and PARTS

1/4"



No.	PIECE
M-15	Speeder—15-3/4" long with knurled revolving grip.....
M-20A	Sliding T Handle—4-1/2" long.....
M-42	Flex Handle only—5-3/4" long; flexible head, knurled grip, crosshole is for sliding Bar.....
M-42B	Sliding Bar, 1/4 x 4-1/2", for M-42.....
M-51	Reversible Ratchet—4-1/2" long, 24 teeth in ratchet-gear instead of usual 14 to 20. Shift-lever reverses the action instantly.....
M-102	Extension Bar—2" long.....
M-106	Spinner Handle, has lockable, revolving, knurled grip with 1/4" square drive-opening in end—6" long...
M-110	Spinner Handle, has lockable, revolving, knurled handle with 1/4" square drive-opening in end. May be used as an Extension or as a Driver with handle locked. A slight turn of the handle locks and unlocks same instantly, 5-3/8" long.....
M-115	Extension Bar—6" long.....
M-116	Extension Bar—14" long.....
M-126	Screw Driver Adapter—6" long.....
MB-130	Adapter—1/4" square female and 3/8" square male. Adapts Sockets with 3/8" square drive-openings to Handles with 1/4" square drive.....
MB-131	Adapter—1/4" square male and 3/8" square female. Adapts Sockets with 1/4" square drive-openings to Handles with 3/8" square drive.....
M-140	Universal Joint—approximate range 140°.....
M-150	Plug Adapter—3/4" long; both ends 1/4" square male.....
MP-1	Phillips Screw Driver Attachment—No. 1 Phillips Drive to fit screws No. 4 and smaller.....
MP-2	Phillips Screw Driver Attachment—No. 2 Phillips Drive fits screws Nos. 5 to 9 inclusive.....



# WILLIAMS

## 1/4 Inch Square Drive MIDGET SUPERSOCKET® WRENCHES Selected Alloy Steel

1/4"

### SOCKETS

Opening	No.	Length
---------	-----	--------



#### REGULAR 6-POINT

3/16	M-606	27/32
7/32	M-607	27/32
1/4	M-608	27/32
9/32	M-609	27/32



#### REGULAR 12-POINT

5/16	M-1210	27/32
11/32	M-1211	27/32
3/8	M-1212	27/32
7/16	M-1214	27/32
1/2	M-1216	27/32



#### EXTRA DEEP 6 and 12-POINT

1/4	MD-608	2
9/32	MD-609	2
5/16	MD-1210	2
11/32	MD-1211	2
3/8	MD-1212	2
7/16	MD-1214	2
1/2	MD-1216	2



#### REGULAR 4 and 8-POINT

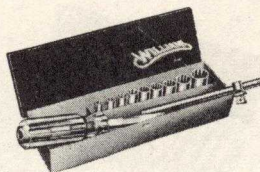
3/16	M-406	27/32
7/32	M-407	27/32
1/4	M-408	27/32
5/16	M-810	27/32
3/8	M-812	27/32

### HOLLOW SCREW SOCKET BITS



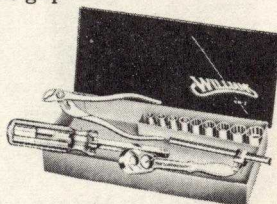
Bit No.	Hex Plug Size	For Hollow Screws	
		Set Screw	Cap Screw
AM-604	1/8	1/4	No. 8
AM-605	5/32	5/16	10 & 12
AM-606	3/16	3/8	1/4
AM-607	7/32	7/16	5/16

### SETS



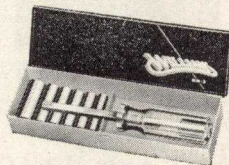
#### SET No. M-1 — In Metal Case Case Only—8 x 2-1/4 x 1-1/4"

Contains 9 Midget "Supersockets"—4 hex openings, 3/16 to 9/32"; 5 12-point openings, 5/16 to 1/2"; Sliding T Handle and Spinner Handle with plastic grip.



#### SET No. M-2 — In Metal Case Case Only—7-3/4 x 3-1/2 x 1-1/4"

Contains 9 Midget "Supersockets"—4 hex openings, 3/16 to 9/32"; 5 12-point openings, 5/16 to 1/2"; Reversible Ratchet; Sliding T Handle; Spinner Handle with plastic grip and Midget Rib-Joint Plier.

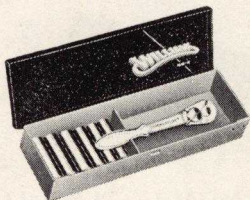


#### SET No. M-3 — In Metal Case Case Only—8 x 2-1/4 x 1-1/4"

Contains 6 Extra Deep Midget "Supersockets"—2 hex openings, 1/4 & 9/32"; 4 12-point openings 5/16 to 7/16" and Spinner Handle with plastic grip.

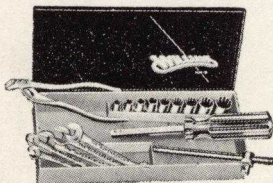
1/4"

## 1/4 Inch Square Drive MIDGET SUPERSOCKET® WRENCHES Selected Alloy Steel SETS



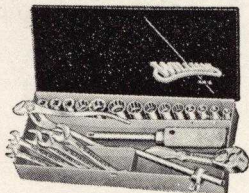
### SET No. M-4—In Metal Case Case Only—8 x 2-1/4 x 1-1/4"

Contains 6 Extra Deep Midget "Supersockets"—2 hex openings, 1/4 and 9/32"; 4 12-point openings 5/16 to 7/16" and Reversible Ratchet.



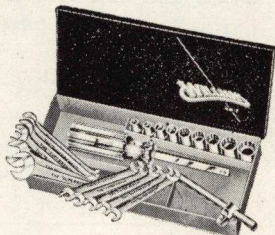
### SET No. M-5—In Metal Case Case Only—7-3/4 x 3-1/2 x 1-1/4"

Contains 9 Midget "Supersockets"—4 hex openings, 3/16 to 9/32"; 5 12-point openings, 5/16 to 1/2"; Sliding T Handle; Spinner Handle with plastic grip; Midget "Rib-Joint Plier" and 5 Midget "Superrenches" with openings, 13/64 to 3/8".



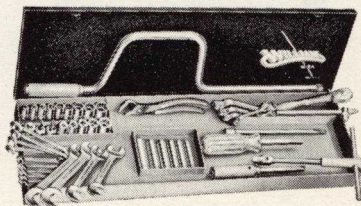
### SET No. M-6—In Metal Case Case Only—7-3/4 x 3-1/2 x 1-1/4"

Contains 14 Midget "Supersockets"—4 hex openings, 3/16 to 9/32"; 5 12-point openings, 5/16 to 1/2"; 3 square openings 3/16 to 1/4"; 2 8-point openings 5/16, 3/8"; Sliding T Handle; Reversible Ratchet; Spinner Handle with lockable revolving grip; Midget "Rib-Joint Plier" and 5 Midget "Superrenches" with openings 13/64 to 3/8".



### SET No. M-7A—In Metal Case Case Only—7-3/4 x 3-1/2 x 1-1/4"

Contains 9 Midget "Supersockets"—4 hex openings, 3/16 to 9/32"; 5 12-point openings, 5/16 to 1/2"; Sliding T Handle; Spinner Handle with plastic grip and 13 Midget "Superrenches" with 15-75° angle openings, 3/16 to 5/8".



### SET No. M8A—In Metal Case Case Only—18-3/4 x 5-1/4 x 1-3/8"

Contains 14 Midget "Supersockets"—4 hex openings, 3/16 to 9/16"; 5 12-point openings, 5/16 to 1/2"; 3 square openings, 3/16 to 1/4"; 2 8-point openings, 5/16, 3/8"; 6 Midget Extra Deep "Supersockets"—2 hex openings, 1/4, 9/32"; 4 12-point openings, 5/16 to 7/16".

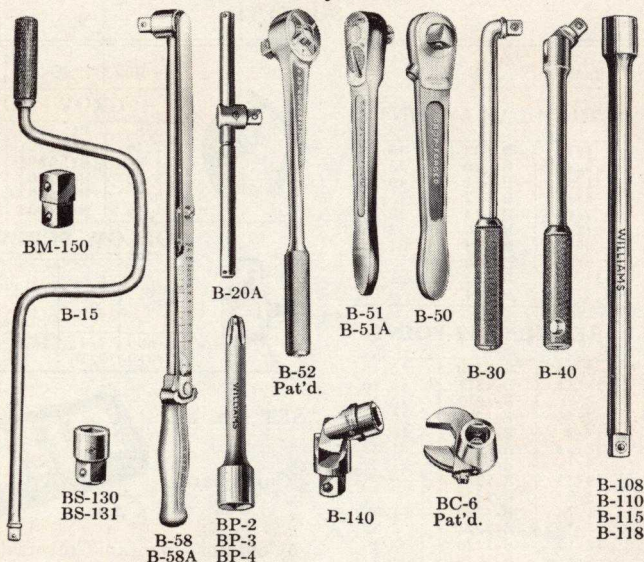
29 Attachments, Wrenches, etc.—Speeder, Sliding T; Flex Handle and Bar; Reversible Ratchet; Spinner Handle with plastic grip; Universal; 1 Regular and 2 Phillips Screw Driver Attachments; Midget "Rib-Joint Plier"; 4 Midget Box "Superrenches" with openings 13/64 to 5/16" and 13 Midget "Superrenches" with 15-75° angle openings, 3/16 to 5/8".



# WILLIAMS

## 3/8 Inch Square Drive BANTAM SUPERSOCKET® WRENCHES Selected Alloy Steel

3/8"



No.	PIECE
BP-2	Phillips Screw Driver Attachment—fits screws Nos. 5 to 9 inclusive.
BP-3	Phillips Screw Driver Attachment—fits screws Nos. 10 to 16 inclusive.
BP-4	Phillips Screw Driver Attachment—fits screws Nos. 18 and larger.
BC-6	Adjustable Crowfoot Attachment—Capacity, 3/4"
B-15	Speeder—16-1/2" long with knurled revolving grip. Handle sweep—3-1/2" R.
B-20A	Sliding T Handle—6-1/2" long.
B-30	Offset Handle—7-3/4" long with non-revolving knurled grip.
B-40	Flex Handle—8-1/2" with flexible head and knurled grip, 3/8" square drive hole for use as an Extension; 3/8" cross-hole for Sliding Bar.
B-42B	Sliding Bar—5/16" rd. x 6" long, fits B-40.
B-50	Ratchet—6-1/2" long with B-150 Connector.
B-51	Reversible Ratchet—6-1/2" long. 24 teeth in Ratchet-gear. Shift lever reverses action instantly.
B-51A	Reversible Ratchet—same as B-51, but has both 3/8" sq. male and 1/4" sq. female ratchet drive in head, also 3/16 and 1/4" sq. drive holes in handle end.
B-52	Reversible Ratchet—7-5/8" long. Concentric type Mechanism of 82 tooth action permits rotation of nuts in close quarters. Shift lever reverses action instantly.
B-58	Torque "Measurrench"—15-1/2" long. Indicates R.H. and L.H. torque 0 to 600 inch pounds. See Page 38.
B-58A	Torque "Measurrench"—12-1/4" long. Indicates R.H. and L.H. torque 0 to 150 inch pounds. See Page 38.
B-108	Extension Bar—3" long.
B-110	Extension Bar—5-1/2" long.
B-115	Extension Bar—10-1/2" long.
B-118	Extension Bar—18" long.
BS-130	Adapter—3/8" sq. female and 1/2" sq. male.
BS-131	Adapter—3/8" sq. male and 1/2" sq. female.
B-140	Universal Joint—approximate range, 140°.
B-150	Ratchet Plug Connector for B-50 Ratchet.
BM-150	Adapter—3/8" sq. male and 1/4" sq. male.



## 3/8 Inch Square Drive BANTAM SUPERSOCKET® WRENCHES Selected Alloy Steel SOCKETS

Opening	No.	Length
---------	-----	--------

### REGULAR-6-POINT



1/4	B-608	15/16
5/16	B-610	15/16
11/32	B-611	15/16
3/8	B-612	15/16
7/16	B-614	15/16
1/2	B-616	15/16
9/16	B-618	31/32
5/8	B-620	1
11/16	B-622	1- 1/32
3/4	B-624	1- 3/32

### REGULAR-12-POINT



5/16	B-1210	15/16
11/32	B-1211	15/16
3/8	B-1212	15/16
7/16	B-1214	15/16
1/2	B-1216	15/16
17/32	B-1217	31/32
9/16	B-1218	31/32
19/32	B-1219	1
5/8	B-1220	1
11/16	B-1222	1- 1/32
3/4	B-1224	1- 3/32
13/16	B-1226	1- 3/16
7/8	B-1228	1- 1/4

### EXTRA DEEP 12-POINT



3/8	BD-1212	2
7/16	BD-1214	2
1/2	BD-1216	2
9/16	BD-1218	2
5/8	BD-1220	2- 1/4
11/16	BD-1222	2- 3/8
3/4	BD-1224	2- 1/2
13/16	BD-1226	2- 5/8
7/8	BD-1228	2-13/16

### UNIVERSAL-12-POINT



3/8	BU-1212	1-37/64
7/16	BU-1214	1-39/64
1/2	BU-1216	1-41/64
9/16	BU-1218	1-11/16
5/8	BU-1220	1- 3/4
11/16	BU-1222	1-25/32
3/4	BU-1224	1-13/16

### 4-POINT and 8-POINT



9/32	B-409	15/16
7/16	BD-814	1-1/2
1/2	BD-816	1-1/2
9/16	BD-818	1-1/2
5/8	BD-820	1-1/2

Opening	No.	Width
---------	-----	-------

### CROWFOOT



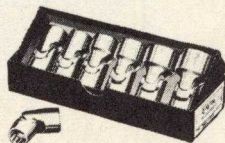
3/8	BC-1700	29/32
7/16	BC-1701	29/32
1/2	BC-1001	1- 1/8
9/16	BC-1702	1- 1/8
5/8	BC-1703	1-11/32
11/16	BC-1003	1-11/32

### HOLLOW SCREW BITS



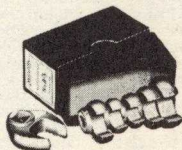
Bit No.	Hex. Plug Size	For Hollow Screws	
		Set Screw	Cap Screw
AB-608	1/4	1/2 & 7/16	3/8 & 7/16
AB-610	5/16	5/8	3/4 & 7/8

### SET No. B-2 In Cardboard Box



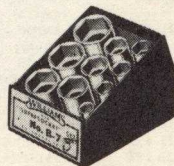
Contains 7 Bantam Universal "Supersockets" with 12-point openings, 3/8, 7/16, 1/2, 9/16, 5/8, 11/16 and 3/4".

### SET No. B-3 In Cardboard Box



Contains 6 Bantam Crowfoot Attachments with openings, 3/8, 7/16, 1/2, 9/16, 5/8 and 11/16".

### SET No. B-7 In Cardboard Box



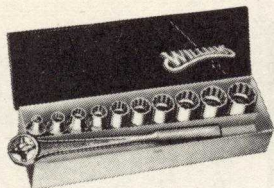
Contains 10 Bantam "Supersockets" with 6-pt. openings, 1/4, 5/16, 11/32, 3/8, 7/16, 1/2, 9/16, 5/8, 11/16 and 3/4".



# WILLIAMS

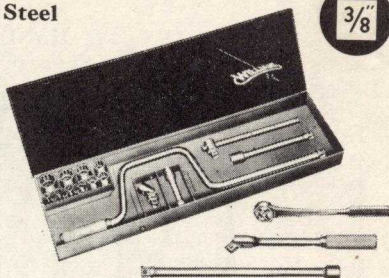
## 3/8 Inch Square Drive BANTAM SUPERSOCKET® WRENCHES Selected Alloy Steel SETS

3/8"



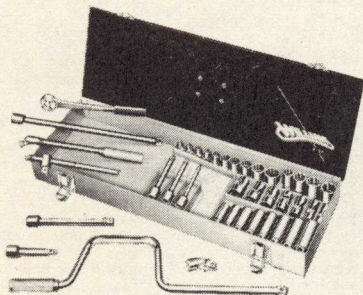
**SET No. B-1—In Metal Case**  
Case Only—8 x 2-1/4 x 1-1/4"

Contains 10 "Supersockets"—1 hex opening, 1/4"; 9 12-point openings, 5/16, 11/32, 3/8, 7/16, 1/2, 9/16, 5/8, 11/16, 3/4" and Reversible Ratchet.



**SET No. B-4—In Metal Case**  
Case Only—18-3/4 x 5-1/4 x 1-3/8"

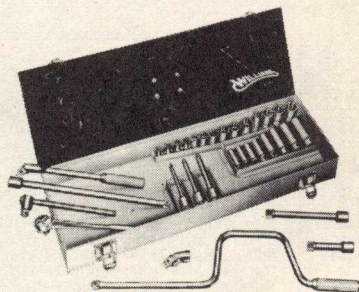
Contains 10 "Supersockets"—1 hex opening, 1/4"; 9 12-point openings, 5/16, 11/32, 3/8, 7/16, 1/2, 9/16, 5/8, 11/16, 3/4". 8 Attachments—Speeder, Sliding T, Flex Handle, Reversible Ratchet, 3 Extensions and Universal.



**SET No. B-5A—In Metal Case**  
Case Only—22 x 7-3/4 x 2-1/4"

Contains 29 "Supersockets"—10 Regular, 1 6-point opening 1/4"; 9 12-point openings, 5/16, 11/32, 3/8, 7/16, 1/2, 9/16, 5/8, 11/16 and 3/4"; 7 Universal with 12-point openings, 3/8, 7/16, 1/2, 9/16, 5/8, 11/16 and 3/4"; 4 Extra Deep with 8-point openings, 7/16, 1/2, 9/16 and 5/8"; 8 Extra Deep with 12-point openings, 7/16, 1/2, 9/16, 5/8, 11/16, 3/4, 13/16 and 7/8".

11 Attachments—Speeder, Sliding T, Flex Handle, Reversible Ratchet, 3 Extensions, Universal and 3 Phillips Screw Driver Attachments.



**SET No. B-6A—In Metal Case**  
Case Only—22 x 7-3/4 x 2-1/4"

Contains 22 "Supersockets"—10 Regular, 1 6-point opening 1/4"; 9 12-point openings, 5/16, 11/32, 3/8, 7/16, 1/2, 9/16, 5/8, 11/16 and 3/4"; 4 Extra Deep with 8-point openings, 7/16, 1/2, 9/16 and 5/8"; 8 Extra Deep with 12-point openings, 7/16, 1/2, 9/16, 5/8, 11/16, 3/4, 13/16 and 7/8".

11 Attachments—Speeder, Sliding T, Flex Handle, Reversible Ratchet, 3 Extensions, Universal and 3 Phillips Screw Driver Attachments.

## 1/2 Inch Square Drive STANDARD SUPERSOCKET® WRENCHES Selected Alloy Steel HANDLES and PARTS



No.	PIECE
SC-8	Adjustable Crowfoot Attachment—Capacity, 15/16"
S-10	Speeder—12" long, with knurled revolving grips
S-15	Speeder—17-1/2" long, with knurled revolving grips
S-20A	Sliding T Handle—11" long
SB-30	Screw Driver Socket Attachment—7/64 x 15/16" blade
SB-40	Screw Driver Socket Attachment—3/32 x 1-1/4" blade
S-40	Flex Handle—12" long, flexible head. Knurled grip with 1/2" square drive hole in end for use as an Extension; 7/16" round cross hole for Bar
S-41	Flex Handle—17-1/4" long; flexible head. Knurled grip with 1/2" square drive hole for use as an Extension; 7/16" round cross hole for Bar
S-42B	Sliding Bar—7/16" round x 9" for S-40 and S-41 Flex Handles
S-50	Ratchet—10" long, complete with Locked-in Plug-Connector
S-50A	Ratchet—10" long, without Plug-Connector
S-52	Reversible Ratchet—11-1/4" long. Concentric type mechanism of 82 tooth action permits rotation of nuts in close quarters. Shift lever reverses action instantly
S-55	Ratchet Adapter—2-9/16" long, 1-1/4" diameter. For Ratchet action with Speeders, Handles, etc. Shift-lever reverses the action instantly
S-57	Torque "Measurrench"—19-1/2" long; indicates R.H. Torque. Has Torque-indicating signal. Indicates R. H. Torque 20 to 200 foot pounds. See page 38
S-58	Torque "Measurrench"—19-7/8" long. Indicates R.H. and L.H. Torque 0 to 200 foot pounds. See page 38
S-58A	Torque "Measurrench"—18" long. Indicates R.H. and L.H. Torque 0 to 100 foot pounds. See page 38
S-60B	Stud Remover—1/2" Square Drive. Stud capacity, 1/4 to 3/4"
S-102P	Extension Bar—2-1/2" long
S-110P	Extension Bar—5-1/2" long
S-115P	Extension Bar—10-1/2" long
S-121P	Extension Bar—20" long
SH-130	Adapter—1/2" square female and 3/4" square male
SH-131	Adapter—3/4" square female and 1/2" square male
S-140	Universal—approximate range 140°
S-150A	Ratchet Plug-Connector for S-50 Ratchet



# WILLIAMS

## 1/2 Inch Square Drive STANDARD SUPERSOCKET® WRENCHES Selected Alloy Steel SOCKETS

1/2"

Opening No. Length

### REGULAR 6-POINT



3/8	ST-612	1- 7/16
7/16	ST-614	1- 1/2
1/2	ST-616	1- 1/2
9/16	ST-618	1- 1/2
9/16	SF-618	1- 1/2
19/32	ST-619	1-17/32
5/8	ST-620	1-17/32
21/32	ST-621	1-17/32
11/16	ST-622	1-17/32
3/4	ST-624	1- 9/16
25/32	ST-625	1- 9/16
13/16	ST-626	1-19/32
7/8	ST-628	1-41/64
15/16	ST-630	1-41/64
1	ST-632	1-11/16

### REGULAR 12-POINT



3/8	ST-1212	1- 7/16
7/16	ST-1214	1- 1/2
1/2	ST-1216	1- 1/2
9/16	ST-1218	1- 1/2
19/32	ST-1219	1-17/32
5/8	ST-1220	1-17/32
21/32	ST-1221	1-17/32
11/16	ST-1222	1-17/32
3/4	ST-1224	1- 9/16
25/32	ST-1225	1- 9/16
13/16	ST-1226	1-19/32
7/8	ST-1228	1-41/64
15/16	ST-1230	1-41/64
31/32	ST-1231	1-21/32
1	ST-1232	1-11/16
1-1/16	ST-1234	1-27/32
1-1/8	ST-1236	1-27/32
1-3/16	ST-1238	1-29/32
1-1/4	ST-1240	2

### REGULAR 8-POINT



5/16	ST-810	1- 1/2
3/8	ST-812	1- 1/2
7/16	ST-814	1-17/32
1/2	ST-816	1-17/32
9/16	ST-818	1- 9/16
5/8	ST-820	1-41/64
11/16	ST-822	1-41/64
3/4	ST-824	1-11/16
7/8	ST-828	1-27/32
1	ST-832	2

### UNIVERSAL 12-POINT



1/2	SU-1216	2- 7/32
9/16	SU-1218	2- 1/4
5/8	SU-1220	2-21/64
11/16	SU-1222	2- 3/8
3/4	SU-1224	2-29/64

Opening No. Length

### EXTRA DEEP 12-POINT

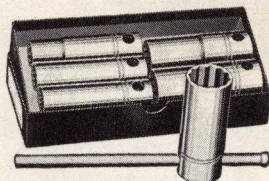


1/2	SD-1216	3-1/4
9/16	SD-1218	3-1/4
5/8	SD-1220	3-1/4
11/16	SD-1222	3-1/4
3/4	SD-1224	3-1/4
25/32	SD-1225	3-1/4
* 13/16	SD-1226	3-1/4
7/8	SD-1228	3-1/4
† 7/8	SD-1228T	3-1/4
15/16	SD-1230	3-1/4
1	SD-1232	3-1/4
1-1/16	SD-1234	3-1/4
1-1/8	SD-1236	3-1/4

### HOLLOW SCREW BITS



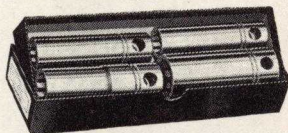
Bit No.	Hex Plug, Size	For Hollow Screws	Set Screw	Cap Screw
AS-612	3/8	3/4	1/2 & 5/8	1/2 & 5/8
AS-616	1/2	7/8	5/8	5/8
AS-618	9/16	1 & 1 1/8	1 1/4 & 1 3/8	1 1/4 & 1 3/8
AS-620	5/8	1 1/4 & 1 3/8	1 3/8	1 3/8



#### SET No. S-8

#### In Cardboard Box

Contains 6 Standard Extra Deep "Supersockets" with 12-point openings — 9/16, 5/8, 11/16, 13/16, 7/8, 1" and Sliding Bar 7" long.



#### SET No. S-9

#### In Cardboard Box

Contains 4 Standard Extra Deep "Supersockets" with 12-point openings — 5/8, 11/16, 13/16, 1" and Sliding Bar.

\* Services 14 mm. Plugs. † Not Guaranteed because of extra thin walls.

THE BROADEST LINE OF ITS KIND

29

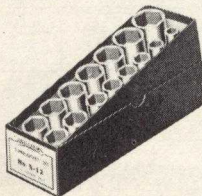
1/2"

## 1/2 Inch Square Drive STANDARD SUPERSOCKET® WRENCHES Selected Alloy Steel SETS



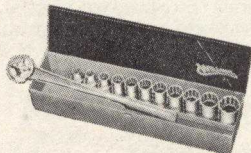
**SET No. S-11**  
**In Cardboard Box**

Contains 5 Universal "Supersockets" with 12-point openings—1/2, 9/16, 5/8, 11/16 and 3/4".



**SET No. S-12—In Cardboard Box**

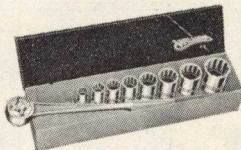
Contains 15 Standard "Supersockets" with 6-point openings—3/8, 7/16, 1/2, 9/16, \*9/16 Ford Special, 19/32, 5/8, 21/32, 11/16, 3/4, 25/32, 13/16, 7/8, 15/16 and 1".



**SET No. S-1—In Metal Case**  
**Case Only—12-1/2 x 3-3/4 x 2-1/8"**

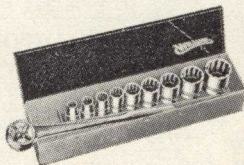
Contains 11 Standard "Supersockets" with 12-point openings 3/8, 7/16, 1/2, 9/16, 19/32, 5/8, 11/16, 3/4, 25/32, 7/8, 1" and Reversible Ratchet.

\*For all Ford 6, Ford-Mercury V-8, 85 HP, 90 HP and 100 HP Connecting Rods.



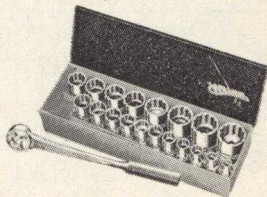
**SET No. S-2—In Metal Case**  
**Case Only—12-1/2 x 3-3/4 x 2-1/8"**

Contains 8 Standard "Supersockets" with 12-point openings 1/2, 19/32, 11/16, 25/32, 7/8, 31/32, 1-1/16, 1-1/4" and Reversible Ratchet.



**SET No. S-3—In Metal Case**  
**Case Only—12-1/2 x 3-3/4 x 2-1/8"**

Contains 9 Standard "Supersockets" with 12-point openings 7/16, 1/2, 9/16, 5/8, 3/4, 7/8, 15/16, 1-1/16, 1-1/4" and Reversible Ratchet.



**SET No. S-4—In Metal Case**  
**Case Only—12-1/2 x 3-3/4 x 2-1/8"**

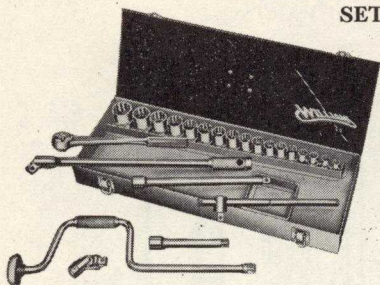
Contains 19 Standard "Supersockets" with 12-point openings 3/8 to 1-1/4" and Reversible Ratchet.



# WILLIAMS

## 1/2 Inch Square Drive STANDARD SUPERSOCKET® WRENCHES Selected Alloy Steel SETS

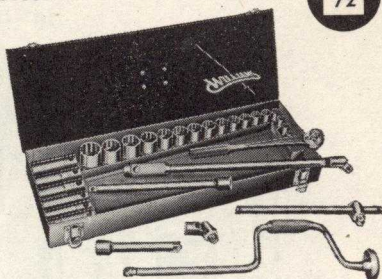
1/2"



**SET No. S-5—In Metal Case**  
Case Only—22 x 7-3/4 x 2-1/4"

Contains 17 Standard "Supersockets" with 12-point openings 3/8 to 1-1/4".

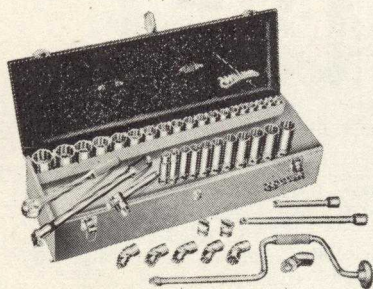
7 Attachments—Speeder, Sliding T Handle, Flex Handle, Reversible Ratchet, 2 Extension Bars and Universal Joint.



**SET No. S-6—In Metal Case**  
Case Only—22 x 7-3/4 x 2-1/4"

Contains 23 Standard "Supersockets"—17 with 12-point openings 3/8 to 1-1/4"; 6 Extra Deep with 12-point openings 9/16 to 1".

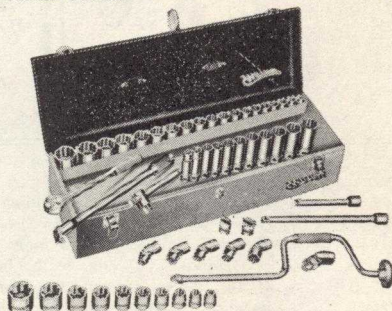
7 Attachments—Speeder, Sliding T Handle, Flex Handle, Reversible Ratchet, 2 Extension Bars and Universal Joint.



**SET No. S-7—In Metal Case**  
Case Only—23-1/4 x 7-1/2 x 6-3/8"

Contains 35 Standard "Supersockets"—19 Regular with 12-point openings 3/8 to 1-1/4"; 5 Universal with 12-point openings 1/2 to 3/4"; 11 Extra Deep with 12-point openings 1/2 to 1-1/8".

9 Attachments—Speeder, Sliding T Handle, Flex Handle, Reversible Ratchet, 2 Extension Bars, Universal Joint and 2 Drag Link Socket Bits.

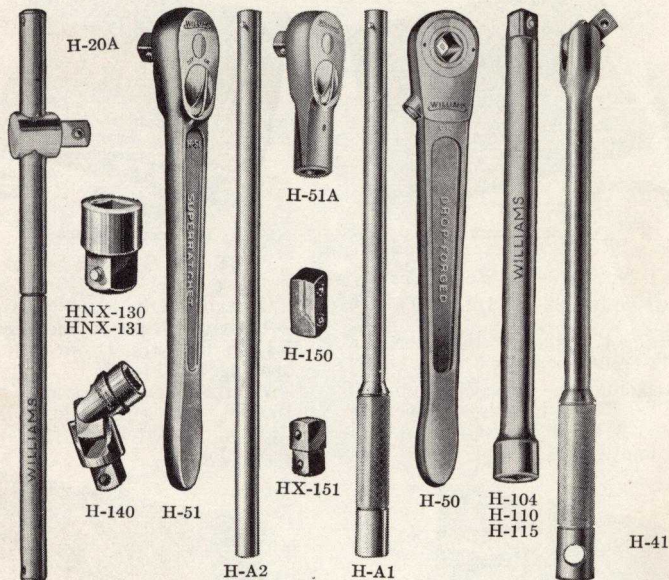


**SET No. S-7A—In Metal Case**  
Case Only—23-1/4 x 7-1/2 x 6-3/8"

Contains 45 Standard "Supersockets"—19 Regular with 12-point openings 3/8 to 1-1/4"; 10 Regular with 8-point openings 5/16 to 1"; 5 Universal with 12-point openings 1/2 to 3/4"; 11 Extra Deep with 12-point openings 1/2 to 1-1/8".

9 Attachments—Speeder, Sliding T Handle, Flex Handle, Reversible Ratchet, 2 Extension Bars, Universal Joint and 2 Drag Link Socket Bits.

## 3/4 In. Square Drive HEAVY DUTY SUPERSOCKET® WRENCHES Selected Alloy Steel HANDLES and PARTS



No.	PIECE
H-A1	Handle—Knurled Grip, 20" long, for H-51A Head
H-A2	Handle—Plain, 20" long, for H-51A Ratchet Head
H-20A	Sliding T Handle—17-1/2" long
H-41	Flex Handle—20" long; flexible head, knurled grip and cross hole for Sliding Bar
H-41B	Sliding Bar—3/4" round x 16" for H-41 and X-41
H-50	Ratchet—18" long; complete with Plug-Connector H-150
H-51	Reversible Ratchet—19" long. 24 teeth in Ratchet-gear instead of usual 16. Shift-lever reverses action instantly
H-51A	Reversible Ratchet Head—6-1/4" long. Mechanism same as H-51
H-51A1	Reversible Ratchet Head with Knurled Handle—24-1/2" long
H-51A2	Reversible Ratchet Head with Plain Handle—24-1/2" long
H-104	Extension Bar— 4" long
H-110	Extension Bar— 8" long
H-115	Extension Bar—15-1/2" long
HNX-130	Adapter—3/4" square female and 1" square male
HNX-131	Adapter—3/4" square male and 1" square female
H-140	Universal—approximate range 140°
H-150	Plug-Connector for H-50 Ratchet
HX-151	Adapter—1" square male and 3/4" square male



# WILLIAMS

## 3/4 In. Square Drive HEAVY DUTY SUPERSOCKET® WRENCHES Selected Alloy Steel

3/4"

### SOCKETS

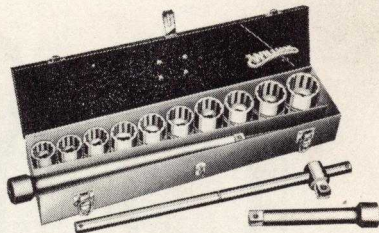
### SETS

Opening	No.	Length
---------	-----	--------

#### REGULAR 12-POINT SOCKETS



7/8	H-1228	2
15/16	H-1230	2
31/32	H-1231	2- 1/16
1	H-1232	2- 1/16
1- 1/16	H-1234	2- 1/8
1- 1/8	H-1236	2- 1/8
1- 3/16	H-1238	2- 3/16
1- 1/4	H-1240	2- 1/4
1- 5/16	H-1242	2- 5/16
1- 3/8	H-1244	2- 3/8
1- 7/16	H-1246	2- 7/16
1- 1/2	H-1248	2- 1/2
1- 5/8	H-1252	2- 5/8
1-11/16	H-1254	2- 3/4
1- 3/4	H-1256	2-13/16
1-13/16	H-1258	2-13/16
1- 7/8	H-1260	2-29/32
2	H-1264	3
2- 1/16	H-1266	3- 1/8
2- 1/8	H-1268	3- 1/4
2- 3/16	H-1270	3- 3/8
2- 1/4	H-1272	3- 1/2



**SET No. H-2—In Metal Case**  
Case Only—19-3/4 x 4 x 3-5/8"

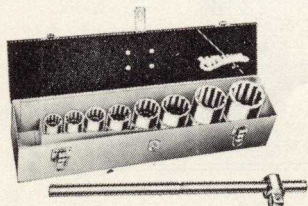
Contains 10 "Supersockets" with 12-point openings, 1-1/16, 1-1/8, 1-3/16, 1-1/4, 1-5/16, 1-3/8, 1-7/16, 1-1/2, 1-5/8 and 1-3/4".

3 Attachments—Sliding T Handle and 2 Extension Bars.

#### EXTRA DEEP 12-POINT SOCKETS

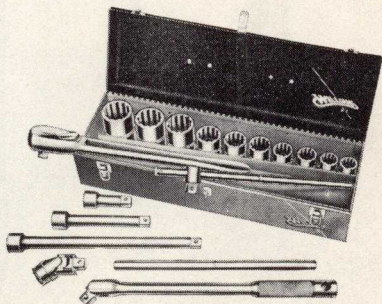


15/16	HD-1230	3-1/4
1-1/16	HD-1234	3-1/4
1-1/4	HD-1240	3-1/4
1-7/16	HD-1246	3-1/2



**SET No. H-1—In Metal Case**  
Case Only—19-3/4 x 4 x 3-5/8"

Contains 8 "Supersockets" with 12-point openings, 7/8, 31/32, 1-1/16, 1-1/4, 1-7/16, 1-5/8, 1-13/16, 2" and H-20A Sliding T Handle.



**SET No. H-3—In Metal Case**  
Case Only—23-1/4 x 7-1/2 x 6-3/8"

Contains 10 "Supersockets" with 12-point openings, 1-1/16, 1-1/8, 1-1/4, 1-5/16, 1-7/16, 1-1/2, 1-5/8, 1-13/16, 1-7/8 and 2".

8 Attachments—Sliding T Handle, Flex Handle and Bar, Reversible Ratchet, 3 Extension Bars and Universal Joint.

1 In. Sq. Dr. EXTRA HEAVY DUTY SUPERSOCKET® WRENCHES

1"

Selected Alloy Steel  
HANDLES and PARTS



X-115



X-20B



X-51



X-41



X-110



X-20C

No.	PIECE
X-20B	Sliding Handle—1" diameter, 20" long. ....
X-20C	Adapter for Sliding Handle X-20B. ....
X-41	Flex Handle—27" long; flexible head, knurled grip and cross hole for Sliding Bar H-41B. See page 32. ....
X-51	"Superratchet"—Reversible—25" long, 24 teeth in Ratchet-gear instead of the usual 16. Shift-lever reverses action instantly. ....
X-110	Extension Bar—9" long. Has cross hole for Sliding Handle X-20B. ....
X-115	Extension Bar—18" long. Has cross hole for Sliding Handle X-20B. ....



## 1 In. Sq. Dr. EXTRA HEAVY DUTY SUPERSOCKET® WRENCHES Selected Alloy Steel

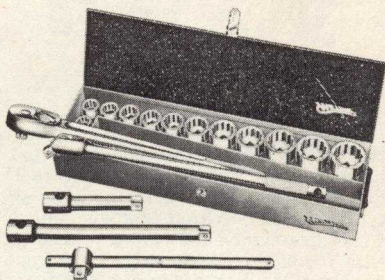
1"

### 12-POINT SOCKETS

### SETS



Sockets are cross-drilled to receive Sliding Handle. "Lock-Socket" device provides a positive lock between sockets and attachments. To release, press button on socket and pull.



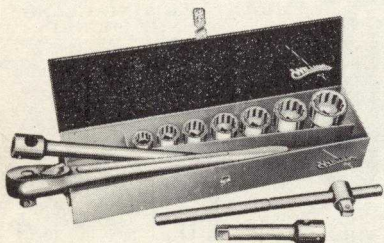
**SET No. X-1—In Metal Case**  
Case Only—29-1/4 x 8 x 4-1/4"

Contains 12 "Supersockets" with 12-point openings, 1-1/16, 1-1/8, 1-1/4, 1-7/16, 1-1/2, 1-5/8, 1-13/16, 1-7/8, 2, 2-3/16, 2-1/4 and 2-3/8".

6 Attachments—Sliding Handle and Adapter, Flex Handle, Reversible Ratchet and 2 Extension Bars.

Opening	No.	Length
1- 1/16	X-1234	2-23/32
1- 1/8	X-1236	2-13/16
1- 1/4	X-1240	2- 7/8
1 3/8	X-1244	2-15/16
1- 7/16	X-1246	2-15/16
1- 1/2	X-1248	3
1- 5/8	X-1252	3- 1/16
1-13/16	X-1258	3- 1/4
1- 7/8	X-1260	3- 3/8
2	X-1264	3- 1/2
2- 1/8	X-1268	3- 5/8
2- 3/16	X-1270	3- 3/4
2- 1/4	X-1272	3- 7/8
2- 3/8	X-1276	4
2- 1/2	X-1280	4
*2- 9/16	X-1282	4
*2- 5/8	X-1284	4
*2- 3/4	X-1288	4- 1/4
*2-15/16	X-1294	4- 1/4
*3- 1/8	X-12100	4- 1/2

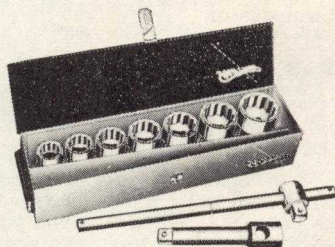
\* These Sockets have short neck, no cross-hole.



**SET No. X-3—In Metal Case**  
Case Only—29-1/4 x 8 x 4-1/4"

Contains 7 "Supersockets" with 12-point openings, 1-1/4, 1-7/16, 1-5/8, 1-13/16, 2, 2-3/16 and 2-3/8".

5 Attachments—Sliding Handle and Adapter, Reversible Ratchet and 2 Extension Bars.



**SET No. X-2—In Metal Case**  
Case Only—20-3/4 x 5-1/4 x 4-1/4"

Contains 7 "Supersockets" with 12-point openings, 1-1/4, 1-7/16, 1-5/8, 1-13/16, 2, 2-3/16 and 2-3/8".

3 Attachments—Sliding Handle, Adapter and Extension Bar.

## WILLIAMS' REFRIGERATION SERVICE TOOLS Selected Alloy Steel

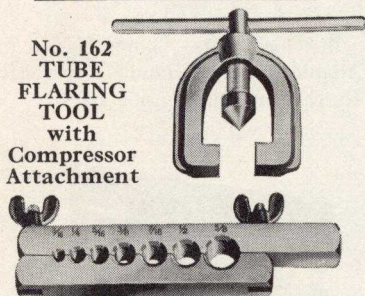


### No. 161 TUBE CUTTER

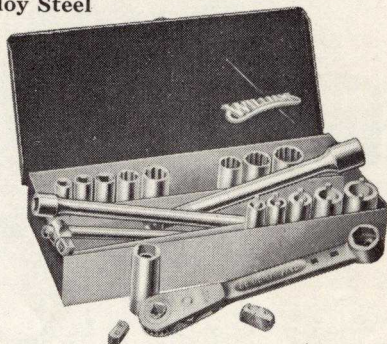
Designed for efficiency and economy, this tool will cut any copper, brass, bronze or similar tubing from 1/8 to 1" diameter. Accurately machined and assembled. Heat-treated tool steel cutter wheel has razor edge to insure a clean cut. Reamer constructed to set flush against tool when not in use, and turns to 90° angle during reaming operation. Red plastic handle and chrome-plated body and holder.

### No. 161-A CUTTER WHEELS

Heat-treated, tool steel razor edge cutter wheels for No. 161 Tube Cutter.



This completely redesigned hinged type flaring tool handles all popular sizes of tubing. The yoke type compressor is drop-forged and easily slips over the die block. The hardened floating cone will give an even, accurate flare and taper that will insure a tight joint. The sliding "T"-handle is 5-1/2" long for added leverage; wing nuts are large. Sizes are stamped on the respective dies. Seven threaded flaring dies with diameters for 3/16, 1/4, 5/16, 3/8, 7/16, 1/2 and 5/8 inches. Cadmium-plated finish.



### SET No. R-19A In Metal Case 7-3/4 x 3-1/2 x 1-1/4" CONTENTS

No.	Opng.	Nose Dia.
<b>1/4" SQ. DR. SOCKETS</b>		
M-406	3/16	7/16
M-407	7/32	15/32
M-408	1/4	1/2
M-810	5/16	9/16
M-812	3/8	11/16
<b>KEROTEST PACKING NUT SOCKET</b>		
MR-15	1 1/2 x 3/8	5/8
<b>PACKING GLAND NUT SOCKETS</b>		
No.	Size Prongs	
	Depth	Width
MR-2	3/32	5/64
MR-4	3/32	1/8
MR-6	3/32	7/64
MR-8	1/8	1/8
MR-10	3/32	5/64
<b>3/8" SQ. DR. SOCKETS</b>		
B-1214	7/16	39/64
B-1216	1/2	11/16
B-1218	9/16	49/64
No.	Handle or Part	
MR-51	Reversible ratchet has 1/4" female drive in head, 5/16", 1/4" and 3/16" sq. openings and 1/2" hex opening in handle.	
M-20A	Sliding T Handle—4-1/2" long.	
B-110	Extension—5-1/2" long.	
M-115	Extension—6" long.	
M-150	Plug Adapter—both ends 1/4" sq. male.	
BM-150	Adapter—3/8" sq. male and 1/4" sq. male.	



M-406  
to  
M-812



MR-15



MR-2  
to  
MR-10



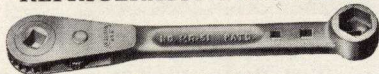
B-1214  
to  
B-1218



# WILLIAMS

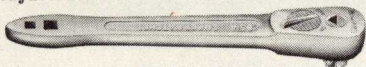
## WILLIAMS' SUPERSOCKET® WRENCHES Selected Alloy Steel

### REFRIGERATION RATCHETS



No. MR-51

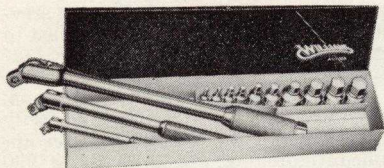
This 6" drop-forged reversible ratchet has 1/4" female drive in head, 5/16", 1/4" and 3/16" square openings and 1/2" hex opening in handle for delicate adjustment of valve stems.



No. B-51A

Reversible Ratchet with both 3/8" square male and 1/4" square female ratchet drive. Also has 3/16" and 1/4" square drive holes in handle end.

### HOLLOW SCREW SOCKET BIT SET



Set No. AL-102A—In Metal Case  
12-1/2 x 3-3/4 x 2-1/8"

#### CONTENTS

No.	Handle
M-42	Flex Handle, 1/4" Sq. Dr., 5-3/4" long
B-40	Flex Handle, 3/8" Sq. Dr., 8-1/2" long
S-40	Flex Handle, 1/2" Sq. Dr., 12" long

**BITS—Also Sold Individually**

Bit No.	Hex. Plug, Size	Sq. Dr.	For Hollow Screws	
			Set Screw	Cap Screw
AM-604	1/8	1/4	1/4	No. 8
AM-605	5/32	1/4	5/16	10 & 12
AM-606	3/16	1/4	3/8	1/4
AM-607	7/32	1/4	7/16	5/16
AB-608	1/4	3/8	1/2 & 9/16	
AB-610	5/16	3/8	5/8	3/8 & 7/16
AS-612	3/8	1/2	3/4	1/2 & 9/16
AS-616	1/2	1/2	7/8	5/8
AS-618	9/16	1/2	1 & 1 1/8	3/4 & 7/8
AS-620	5/8	1/2	1 1/4 & 1 3/8	1

### ADAPTERS



MB-130  
MB-131

BS-130  
BS-131  
SH-130  
SH-131

HNX-130  
HNX-131

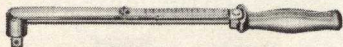
BM-150  
HX-151

Williams Adapters provide for the use of Sockets of one pattern with Handles and Parts of another pattern.

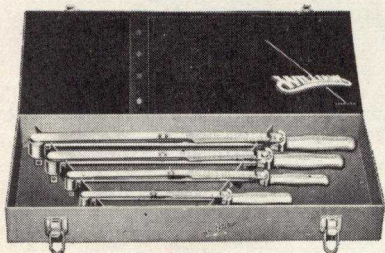
No.	A D A P T E R
BM-150	3/8" Square male and 1/4" square male—Adapts Sockets with 3/8" sq. drive to MR-51 Refrigeration Ratchet.
MB-130	1/4" Square female and 3/8" sq. male—Adapts Parts with 1/4" sq. drive to Sockets with 3/8" square drive.
MB-131	1/4" Square male and 3/8" square female—Adapts Sockets with 1/4" sq. drive to Parts with 3/8" square drive.
BS-130	1/2" Square male and 3/8" square female—Adapts Parts with 3/8" sq. drive to Sockets with 1/2" square drive.
BS-131	3/8" Square male and 1/2" square female—Adapts Sockets with 3/8" sq. drive to Parts with 1/2" square drive.
SH-130	3/4" Square male and 1/2" square female—Adapts Parts with 1/2" sq. drive to Sockets with 3/4" square drive.
SH-131	3/4" Square female and 1/2" sq. male—Adapts Parts with 3/4" sq. drive to Sockets with 1/2" square drive.
HNX-130	1" Square male and 3/4" square female—Adapts Parts with 3/4" sq. drive to Sockets with 1" square drive.
HNX-131	1" Square female and 3/4" square male—Adapts Parts with 1" sq. drive to Sockets with 3/4" square drive.
HX-151	1" Square male and 3/4" square male—Adapts Sockets with 1" square drive to Ratchets with 3/4" square drive.

# WILLIAMS

## WILLIAMS' TORQUE MEASURENRENCHES® Selected Alloy Steel



For Measuring  
Right and Left Hand Torque  
By Sight Reading



**SET No. T4-58**  
**In Metal Case**  
20-7/8 x 8-1/2 x 2-1/2"

Contains one each  
of four Measurrenches listed below

Accuracy is not dependent on delicate gears, levers or dials. There are no mechanisms to get out of order. Selected alloy steel construction throughout assures years of accurate performance. They are built to withstand hard abuse.

Calibrations are machine cut to insure long life, accuracy and easy reading of the indicated torque.

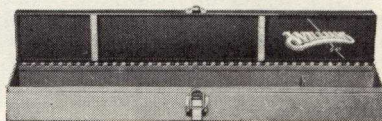
Selected alloy steel is accurately machined and heat-treated. Chrome-plated finish with calibrated areas buffed. Operating instructions are supplied with each individually boxed wrench.

### CONTENTS

No.	Sq. Dr. Size	Capacity
B-58A	3/8"	0 to 150 inch lbs.
B-58	3/8"	0 to 600 inch lbs.
S-58A	1/2"	0 to 100 foot lbs.
S-58	1/2"	0 to 200 foot lbs.



Reversible Ratchet  
With Right Hand Torque  
Indicating Signal



**No. S-57**  
**In Metal Case**  
20 x 3 x 2-1/8"

**STANDARD PATTERN**  
**1/2" Square Drive**

Williams' Ratchet "Measurrench," 19-1/2" long, is the most durable and efficient tool for torque indicating service on the market. It can be applied to ANY detachable Socket having 1/2" square drive-opening.

The wrench may be used in two ways:  
**BY SIGHT READING**—An easily read scale on the handle indicates applied tightening pressures 20 to 200 foot-pounds.

**BY SOUND READING**—A sharp sound signal is given for any desired torque from 35 to 200 foot-pounds, by setting the simple sound device. Right-hand torque only is measured, but action of wrench reverses instantly for left-hand turning.

Operating instructions are supplied with each wrench along with a chart giving the foot-pounds tension to be applied on cylinder heads, connecting rods, main bearings, etc. This data covers all popular cars and trucks, as recommended by their manufacturers.

Packed in individual Metal Case.

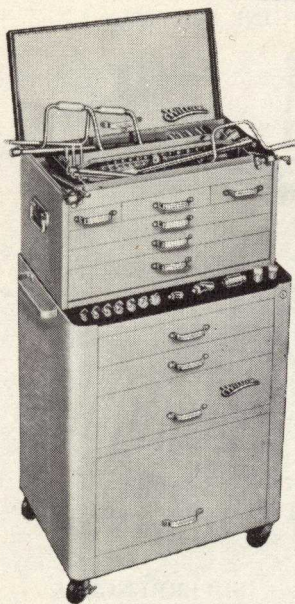
### CONTENTS

No.	Capacity	Length
S-57	20 to 200 foot lbs.	19-1/2



# WILLIAMS

## WILLIAMS' SUPERSOCKET® SETS Selected Alloy Steel

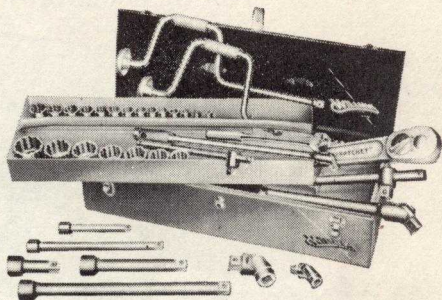


### MOBILE TOOL CABINET

Made of heavy gauge steel with four 4" ball-bearing rubber-tired casters, two with side brakes.

Fitted with cylinder lock, tempered Masonite top and brass name plate, on which owner's name will be engraved free of charge. Finished in Williams orange enamel.

Overall size—17-3/4" deep x 26" wide x 32" high.



### SET No. SH-10

#### In Metal Case

Case Only—23-1/4 x 7-1/2 x 6-3/8"

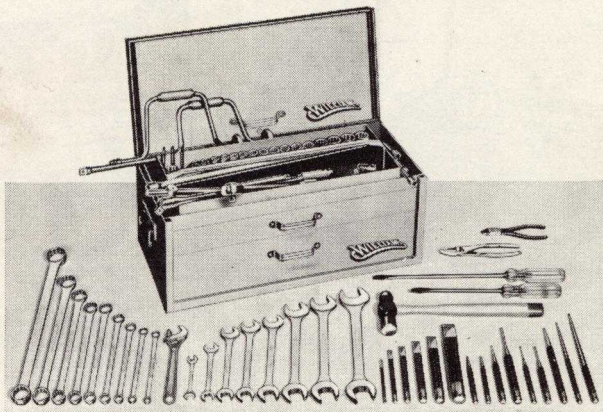
Contains 14 Standard "Supersockets" with 12-point openings 3/8 to 1"; 7 Heavy Duty "Supersockets" with 12-point openings 1-1/16 to 1-5/8".

8 Standard Attachments—2 Speeders, Sliding T Handle, Flex Handle, Reversible Ratchet, 2 Extension Bars, Universal Joint; 7 Heavy Duty Attachments—Sliding T Handle, Flex Handle, Reversible Ratchet, 3 Extension Bars and Universal Joint.

No.	Description
TC-100	Mobile Tool Cabinet only.....
TC-200	Mobile Tool Cabinet with No. 1001 Tool Assortment without "Superchest" (See Page 43 for contents).....
TC-300	Mobile Tool Cabinet with No. 2001 Tool Assortment without "Superchest" (See Page 45 for contents).....
TC-400	Mobile Tool Cabinet with No. 1001 Tool Assortment complete with "Superchest" (See Page 43 for contents).....
TC-500	Mobile Tool Cabinet with No. 2001 Tool Assortment complete with "Superchest" (See Page 45 for contents).....

# WILLIAMS

## WILLIAMS' SUPERSOCKET® SETS Selected Alloy Steel FOR GENERAL DIESEL ENGINE SERVICE



### SET No. DLS-70

**30 Sockets, 15 Attachments and 38 Wrenches, etc.**

2 Color Steel Chest — 22-1/2 x 10 x 10-1/4"

### CONTENTS

#### SUPERSOCKETS

18 Standard Pattern—with 3/8, 7/16, 1/2, 9/16, 19/32, 5/8, 11/16, 3/4, 25/32, 13/16, 7/8, 15/16, 31/32, 1, 1-1/16, 1-1/8, 1-3/16 and 1-1/4" 12-point openings.

12 Heavy Duty Pattern—with 7/8, 15/16, 1, 1-1/16, 1-1/8, 1-3/16, 1-1/4, 1-5/16, 1-3/8, 1-7/16, 1-1/2 and 1-5/8" 12-point openings.

#### SUPERSOCKET ATTACHMENTS

8 Standard Pattern—Nos S-10, S-15, S-20A, S-41, S-52, S-110P, S-115P and S-140.

7 Heavy Duty Pattern—Nos. H-20A, H-41, H-41B, H-104, H-110, H-115 and H-140.

#### PUNCHES AND CHISELS

3 Pin Punches—with points 1/8, 3/16 and 1/4". 2 Solid Punches—with points 3/32 and 1/8". 2 Long Taper Punches—with points 5/32 and 3/16".

#### SUPERRENCHES

10 15° Angle Offset-Box Pattern—with 3/8 x 7/16, 7/16 x 1/2, 1/2 x 9/16, 9/16 x 5/8, 5/8 x 3/4, 11/16 x 3/4, 3/4 x 7/8, 15/16 x 1, 1-1/16 x 1-1/8 and 1-1/16 x 1-1/4" openings.

8 15° Angle Double Head Engineers' Pattern—with 3/8 x 7/16, 1/2 x 9/16, 5/8 x 3/4, 11/16 x 25/32, 3/4 x 7/8, 15/16 x 1, 1-1/16 x 1-1/8 and 1-1/8 x 1-1/4" openings.

#### SCREW DRIVERS - PLIERS - ETC.

2 Screw Drivers—with round blades 8 and 12" long. 1 Side Cutting Pliers—7" long. 1 Diagonal Cutting Pliers—6" long. 1 Ball Pein Hammer—No. 2—1-1/2 lbs. 1 8" "Superjustable" Wrench.

#### PUNCHES AND CHISELS

1 Prick Punch—5" long. 1 Center Punch—5" long. 6 Cold or Flat Chisels—4-3/4 to 8" long.





**WILLIAMS' SUPERSOCKET® SETS**  
Selected Alloy Steel  
**FOR GENERAL DIESEL ENGINE SERVICE**

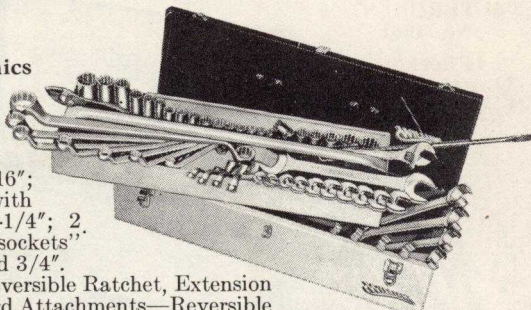
**SET No. DLM-52**  
**For Diesel Engine Mechanics**

Contains 5 Bantam "Supersockets" with 12-point openings 3/8 to 5/8"; 2 Bantam Universal "Supersockets" with 12-point openings 1/2 to 9/16"; 15 Standard "Supersockets" with 12-point openings 3/8 to 1-1/4"; 2 Standard Extra Deep "Supersockets" with 12-point openings 1/2 and 3/4".

3 Bantam Attachments—Reversible Ratchet, Extension and Universal Joint; 6 Standard Attachments—Reversible Ratchet, Speeder, Flex Handle, 2 Extension Bars and Universal Joint.

9 Engineers' Pattern—15° Angle, Double Head "Superrenches" with openings 3/8 x 7/16 to 15/16 x 1"; 5 Double Offset-Box Pattern "Superrenches" with openings 1/2 x 9/16 to 7/8 x 15/16".

2 Pliers—Side Cutting and Diagonal Cutting; 2 Screw Drivers—8 and 12" blades; 1 8" "Superjustable."



**SETS Nos. DLE-44 and DLE-55 For General Diesel Service**

**\*Heavy Duty Sockets and Handles not included in Set No. DLE-44**

Contains 11 Standard 12-point "Supersockets" 7/16 to 1-1/8"; \*7 Heavy Duty 12-point "Supersockets" 7/8 to 2-1/4".

6 Standard Attachments—Flex Handle, Reversible Ratchet, 3 Extension Bars and Universal Joint; \*4 Heavy Duty Attachments—Flex Handle, Reversible Ratchet, Extension Bar and Universal Joint.

8 Double Head Open End "Superrenches" with openings 5/16 x 3/8 to 1-1/8 x 1-1/4"; 7 15° Offset Box "Superrenches" with openings 5/16 x 3/8 to 1-1/8 x 1-1/4"; 1 Open End Box "Superrench" with openings 1-3/8 x 1-3/8".

2 Pliers—Diagonal and Side Cutting, 2 Screw Drivers 4 and 8", 1 Long Taper Punch, 1 3/4" Cold Chisel, 1 16" Pinch Bar, 1 Ball Pein Hammer 1-1/2 lb., 1 Soft Face Hammer 1-1/4 lb., 1 8" "Superjustable", 11 Allen Wrenches .050" to 3/8".

**SET No. DLP-65 For Diesel Engine Pipe Fitters**

Contains 7 Bantam "Supersockets" with 12-point openings 3/8 to 3/4"; 3 Bantam Extra Deep "Supersockets" with 12-point openings 1/2 to 3/4"; 8 Standard "Supersockets" with 12-point openings 3/8 to 1-1/8"; 3 Standard Extra Deep "Supersockets" with 12-point openings 3/4 to 1-1/8"; 1 Standard Universal "Supersocket" with 3/4" 12-point opening.

4 Bantam Attachments—Reversible Ratchet, Universal Joint and 2 Extension Bars; 6 Standard Attachments—Reversible Ratchet, Flex Handle, Universal Joint and 3 Extension Bars.

11 Engineers' Pattern—15° Angle, Double Head "Superrenches" with openings 3/8 x 7/16 to 1-1/16 x 1-1/8"; 11 Double Offset-Box Pattern "Superrenches" with openings 3/8 x 7/16 to 9/16 x 5/8"; 8 Flare Nut Pattern "Superrenches" with openings 9/16 to 1-1/8".

1 Side Cutting Pliers; 1 12" Screw Driver and 1 8" "Superjustable."

**All Sets complete in Metal Case, 23-1/4 x 7-1/2 x 6-3/8"**



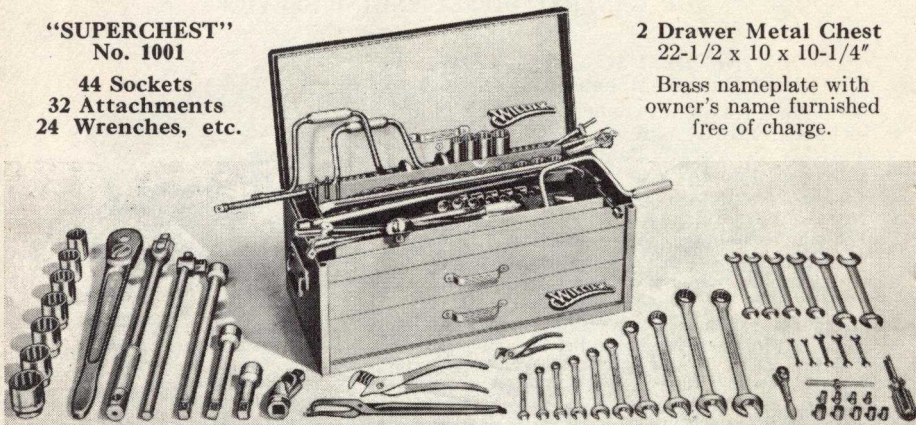
## WILLIAMS' SUPERSOCKET® SETS Selected Alloy Steel

### "SUPERCHEST" No. 1001

44 Sockets  
32 Attachments  
24 Wrenches, etc.

### 2 Drawer Metal Chest 22-1/2 x 10 x 10-1/4"

Brass nameplate with  
owner's name furnished  
free of charge.



### CONTENTS

This "SupercHEST" is constructed of heavy gauge steel adequately reinforced and welded. Removable "tote" tray has convenient compartments in which to keep sockets.

#### "SUPERSOCKETS"

- 9 Midget Pattern—4 6-point openings 3/16 to 9/32"; 5 12-point openings 5/16 to 1/2".
- 8 Bantam Pattern—7 Regular with 12-point openings 3/8 to 3/4"; 1 Extra Deep with 13/16" 12-point opening.
- 20 Standard Pattern—16 Regular with 12-point openings 3/8 to 1"; 4 Extra Deep with 12-point openings 11/16 to 1".
- 7 Heavy Duty Pattern—with 12-point openings 1-1/16 to 1-5/8".

#### "SUPERSOCKET" ATTACHMENTS

- 3 Midget Pattern—Nos. M-20A, M-51 and M-106.
- 11 Bantam Pattern—Nos. B-15, B-20A, B-40, B-52, B-108, B-110, B-115, B-140, BP-2, BP-3 and BP-4.
- 11 Standard Pattern—Nos. S-10, S-15, S-20A, S-41, S-52, S-110P, S-115P, S-121P, S-140, SB-30 and SB-40.
- 7 Heavy Duty Pattern—Nos. H-20A, H-41, H-51, H-104, H-110, H-115 and H-140.

#### "SUPERRENCHES"

- 6 Tappet Pattern—2 each Nos. 1090D, 1092F and 1094 with 1/2, 9/16, 5/8, 11/16, 3/4 and 7/8" openings.
- 5 Midget Pattern—15° angle openings 13/64 to 3/8".
- 10 Open End-Box Pattern—openings 5/16 to 1".

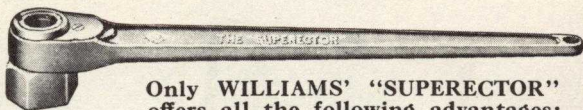
#### "PLIERS"

- 1 1517 Pliers for brake-shoe springs, 13" long.
- 1 1519A Rib-Joint Ignition Pliers, 5" long.
- 1 1520 Rib-Joint Utility Pliers, 10" long.



# WILLIAMS

## WILLIAMS' SUPERECTOR® RATCHET WRENCHES



Only WILLIAMS' "SUPERECTOR"  
offers all the following advantages:

**QUADRUPLE PAWLS.** Two pawls engaging 2 teeth for both ON and OFF rotation of nuts, providing increased bearing and strength.

**HANDLE** drop-forged (not cast) from special high grade steel.

**GEAR TEETH.** 20 teeth in ALL socket gears instead of the usual 16 teeth.

**SHIFTER.** When in neutral, completely disengages all gears for easy insertion and removal of the Socket. A flip of the lever reverses the action of the wrench.

**SOCKETS** have hole through center; turn nuts on any length of bolt. All are heat-treated for maximum strength.

### WRENCHES ONLY, without SOCKETS

Number	Length
E1-24	24
E1-36	36

#### E1 Sockets fit both above Wrenches only

E2-36	36
E2-48	48

#### E2 Sockets fit both above Wrenches only

E3-48	53
-------	----

#### E3 Sockets fit the above Wrench only



### SET No. E1-12 12 Pieces

In Wooden Box 36 x 6 x 5-1/2"

Contains "Superector" Wrench E1-24 and 11 Sockets: 4 Square—1-1/16, 1-1/4, 1-7/16 and 1-5/8". 7 Hex—1-1/16, 1-1/4, 1-7/16, 1-5/8, 1-13/16 2 and 2-3/16".

### SOCKETS ONLY — Hex and Square

Nominal Opening, Size Across Flats	Number	
	Hex Socket	Square Socket

#### E1 SOCKETS below

##### fit E1-24 and E1-36 Wrenches ONLY

1	E1-617	E1-416
1- 1/16	E1-618	E1-417
1- 1/8	E1-620	E1-418
1- 1/4	E1-621	E1-420
1- 5/16	E1-623	E1-421
1- 7/16	E1-624	E1-423
1- 1/2	E1-626	E1-424
1- 5/8	E1-627	E1-426
1-11/16	E1-628	
1- 3/4	E1-629	
1-13/16	E1-630	E1-429
1- 7/8	E1-632	E1-430
2	E1-633	E1-432
2- 1/16	E1-635	
2- 3/16	E1-636	E1-435
2- 1/4		E1-436

#### E2 SOCKETS below

##### fit E2-36 and E2-48 Wrenches ONLY

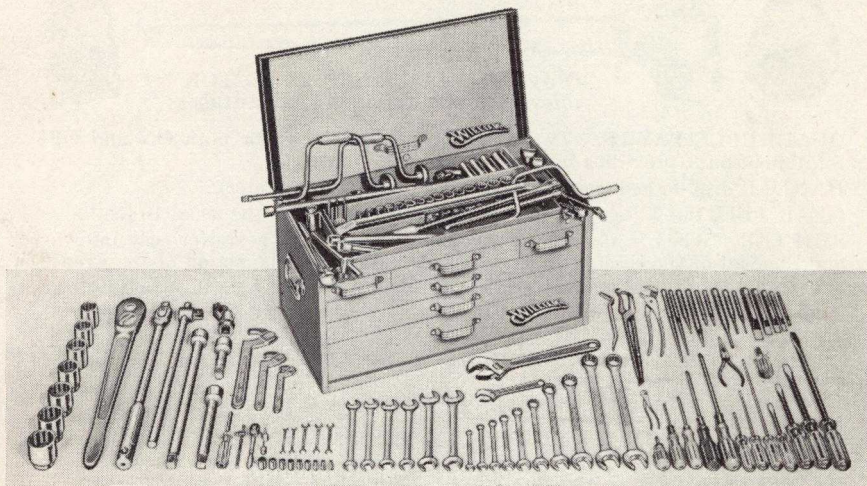
2	E2-632	E2-432
2- 3/16	E2-635	E2-435
2- 3/8	E2-638	E2-438
2- 9/16	E2-641	E2-441
2- 3/4	E2-644	E2-444
2-15/16	E2-647	E2-447
3- 1/8	E2-650	E2-450

#### E3 SOCKETS below

##### fit E3-48 Wrench ONLY

3-1/8	E3-650	E3-450
3-1/2	E3-656	E3-456
3-7/8	E3-662	E3-462
4-1/4	E3-668	E3-468
4-5/8	E3-674	E3-474

## WILLIAMS' SUPERSOCKET® SETS Selected Alloy Steel



**"SUPERCHEST" No. 2001**  
**51 Sockets, 37 Attachments and 61 Wrenches, etc.**  
**6 Drawer Metal Chest — 25 x 12-1/2 x 14-1/2"**

Williams 2001 "SupercHEST" is a superbly complete set of tools—a miniature tool room. A wide range of "Supersockets" with Attachments in 1/4, 3/8, 1/2 and 3/4" drives gives the operator an extremely flexible wrench system. Additional "Superrenches," pliers, chisels, screw drivers, etc. make this set remarkably versatile.

This smartly designed "SupercHEST" is constructed of heavy gauge steel adequately reinforced and welded. It is built to last a lifetime. Drawers operate on free acting suspension slides. Removable "tote" tray has convenient compartments in which to keep sockets. Heavy duty handles provide for transportation. A cylinder lock on the hinged front panel securely locks the entire chest. Finished in bright Williams orange enamel.

An individual heavy brass nameplate, on which the owner's name will be engraved free of charge, is furnished with each chest.





**WILLIAMS' SUPERSOCKET® SETS**  
**Selected Alloy Steel**  
**Contents - "SUPERCHEST" No. 2001**

**"SUPERSOCKETS"**

- 9 Midget Pattern:—4 6-point openings, 3/16 to 9/32"; 5 12-point openings 5/16 to 1/2".
- 15 Bantam Pattern:—7 Regular with 12-point openings 3/8 to 3/4"; 1 Extra Deep with 13/16" 12-point opening; 7 Universals with 12-point openings 3/8 to 3/4".
- 20 Standard Pattern:—16 Regular with 12-point openings 3/8 to 1"; 4 Extra Deep with 12-point openings 11/16 to 1".
- 7 Heavy Duty Pattern:—12-point openings 1-1/16 to 1-5/8".

**"SUPERSOCKET" ATTACHMENTS**

- 5 Midget Pattern:—Nos. M-20A, M-51, M-106, MP-1 and MP-2.
- 12 Bantam Pattern:—Nos. B-15, B-20A, B-40, B-52, B-108, B-110, B-115, B-140, BP-2, BP-3, BP-4 and BS-130.
- 13 Standard Pattern:—Nos. S-10, S-15, S-20A, S-41, S-52, S-55, S-110P, S-115P, S-121P, S-140, SB-30, SB-40 and SH-130.
- 7 Heavy Duty Pattern:—Nos. H-20A, H-41, H-51, H-104, H-110, H-115 and H-140.

**"SUPERRENCHES"**

- 6 Tappet Pattern:—2 each Nos. 1090D, 1092F and 1094 with 1/2, 9/16, 5/8, 11/16, 3/4 and 7/8" openings.
- 5 Midget Pattern:—15° angle openings 13/64 to 3/8".
- 10 Open End-Box Pattern:—openings 5/16 to 1".
- 3 Adjustable Hook Spanners:—for circles 3/4 to 4-3/4".
- 1 Special "Superrench":—for Star Nut, etc.—Bendix Hydraulic.

**"SUPERJUSTABLES"**

- 2 One each—6" and 12"—Capacity 0 to 1-5/16".

**PLIERS**

- 1 No. 6 Combination Slip-Joint Pliers, 6" long.
- 1 No. 46 Diagonal Cutting Pliers, 6" long.
- 1 No. 76 Needle Nose Side Cutting Pliers, 6" long.
- 1 1517 Pliers for brake-shoe springs, 13" long.
- 1 1519A Rib-Joint Ignition Pliers, 5" long.
- 1 1520A Rib-Joint Utility Pliers, 10" long.

**REGULAR SCREW DRIVERS**

- 4 Square Blades—4, 6, 8 and 12" long.
- 3 Round Blades—3, 6 and 10" long.
- 1 Regular Stubby—Blade, 1-1/2" long.

**PHILLIPS SCREW DRIVERS**

- 5 Including Stubby—fit entire range of Phillips Screws.

**PUNCHES AND CHISELS**

- 3 Pin Punches—with points 1/8, 3/16 and 1/4"
- 2 Solid Punches—with points 3/32 and 1/8".
- 2 Long Taper Punches—with points 5/32 and 3/16".
- 1 Prick Punch—5" long.
- 1 Center Punch—5" long.
- 5 Cold or Flat Chisels—4-3/4 to 7" long.

**BALL PEIN HAMMER**

- 1 No. 2-0 Ball Pein Hammer, 3/4 lb., 13-1/2" long.

## "O" SERIES—1/4 Inch Square Drive—POWER DRIVE SOCKETS For All Types of Power Wrenches

1/4"



Standard Length—Thin Wall



Bolt Clearance Length



Standard Length  
For Hardened  
and  
Self-Tapping  
Screws



Standard Length  
Magnetic  
For Hardened and  
Self-Tapping  
Screws

Nominal Opening	No.	Maximum Dimensions		Nominal Dimensions	
		Diam. Drive End	Diam. Nose	Length Overall	Depth Opening

### STANDARD LENGTH—THIN WALL SINGLE HEXAGON OPENINGS

Finish—Rust Resistant

3/16	30-606	.435	.295	27/32	3/16
7/32	30-607	.435	.330	27/32	13/64
1/4	30-608	.435	.367	27/32	7/32
9/32	30-609	.435	.411	27/32	15/64
5/16	30-610	.435	.453	27/32	1/4
11/32	30-611	.490	.490	27/32	9/32
3/8	30-612	.526	.526	27/32	5/16
7/16	30-614	.606	.606	27/32	9/32
1/2	30-616	.674	.674	27/32	21/64

### BOLT CLEARANCE LENGTH SINGLE HEXAGON OPENINGS

Finish—Rust Resistant

1/4	10-608	.440	.440	2	7/32
5/16	10-610	.503	.503	2	1/4
3/8	10-612	.565	.565	2	5/16
7/16	10-614	.628	.628	2	9/32

### EXTENSIONS



Male squares have spring plunger

No.	Length	Square Male	Square Female
O-102A	2	1/4	1/4
O-106A	6	1/4	1/4

Nominal Opening	No.	Maximum Dimensions		Nominal Dimensions	
		Diam. Drive End	Diam. Nose	Length Overall	Depth Opening

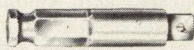
### STANDARD LENGTH SINGLE HEXAGON OPENINGS FOR HARDENED & SELF-TAPPING SCREWS Copper colored for positive identification

3/16	20-606	.440	.315	7/8	1/16
1/4	20-608	.440	.440	7/8	7/64
9/32	20-609	.503	.471	7/8	7/64
5/16	20-610	.503	.503	7/8	1/8
11/32	20-611	.503	.503	7/8	1/8
3/8	20-612	.565	.565	7/8	3/16
7/16	20-614	.628	.628	7/8	15/64
1/2	20-616	.691	.691	7/8	15/64

### STANDARD LENGTH SINGLE HEX OPEN'GS.—MAGNETIC FOR HARDENED & SELF-TAPPING SCREWS Copper colored for positive identification

3/16	20-606M	.440	.315	7/8	1/16
1/4	20-608M	.440	.440	7/8	7/64
9/32	20-609M	.503	.471	7/8	7/64
5/16	20-610M	.503	.503	7/8	1/8
11/32	20-611M	.503	.503	7/8	1/8
3/8	20-612M	.565	.565	7/8	3/16

### HEXAGON—SQUARE SHANKS



Male squares have spring plunger

No.	Length	Square Male	Hex Male
O-02A	2	1/4	1/4
O-04A	4	1/4	1/4



## "2" SERIES—3/8 Inch Square Drive—POWER DRIVE SOCKETS For All Types of Power Wrenches

3/8



Standard Length



Bolt Clearance Length



Standard Length



Standard Length Magnetic

Nominal Opening	No.	Maximum Dimensions		Nominal Dimensions	
		Diam. Drive End	Diam. Nose	Length Overall	Depth Opening

### STD. LENGTH—ALTERNATE DESIGN SINGLE HEXAGON OPENINGS Finish—Rust Resistant

5/16	A2-610	.690	.477	7/8	1/4
11/32	A2-611	.690	.515	7/8	9/32
3/8	A2-612	.690	.555	15/16	5/16
7/16	A2-614	.690	.636	15/16	9/32
1/2	A2-616	.716	.716	15/16	21/64
9/16	A2-618	.794	.794	1	13/32
19/32	A2-619	.837	.837	1	5/16
5/8	A2-620	.878	.878	1-1/8	29/64
11/16	A2-622	.956	.956	1-1/8	29/64
3/4	A2-624	1.034	1.034	1-3/16	9/16

### STANDARD LENGTH—THIN WALL DOUBLE HEXAGON OPENINGS Finish—Rust Resistant

1/4	32-1208	.659	.378	15/16	7/32
5/16	32-1210	.659	.440	15/16	1/4
3/8	32-1212	.659	.546	15/16	5/16
7/16	32-1214	.669	.622	15/16	9/32
1/2	32-1216	.701	.701	15/16	21/64
9/16	32-1218	.775	.775	1	13/32
5/8	32-1220	.852	.852	1-1/8	29/64
11/16	32-1222	.929	.929	1-1/8	29/64
3/4	32-1224	1.002	1.002	1-3/16	9/16

### STANDARD LENGTH DOUBLE SQUARE OPENINGS Finish—Rust Resistant

5/16	2-810	.690	.565	7/8	1/4
3/8	2-812	.690	.650	15/16	5/16
7/16	2-814	.753	.753	15/16	15/64
1/2	2-816	.878	.878	15/16	19/64
9/16	2-818	1.003	1.003	1	3/8
5/8	2-820	1.128	1.128	1-1/8	25/64

### BOLT CLEARANCE LENGTH SINGLE HEXAGON OPENINGS Finish—Rust Resistant

5/16	12-610	.690	.477	1-1/2	1/4
3/8	12-612	.690	.555	1-1/2	5/16
7/16	12-614	.690	.636	1-1/2	9/32
1/2	12-616	.716	.716	1-1/2	21/64
9/16	12-618	.794	.794	1-1/2	13/32
5/8	12-620	.878	.878	1-1/2	29/64
11/16	12-622	.956	.956	1-1/2	29/64
3/4	12-624	1.034	1.034	1-1/2	9/16

Nominal Opening	No.	Maximum Dimensions		Nominal Dimensions	
		Diam. Drive End	Diam. Nose	Length Overall	Depth Opening

### STANDARD LENGTH SINGLE HEXAGON OPENINGS FOR HARDENED & SELF-TAPPING SCREWS Copper colored for positive identification

5/16	22-610	.690	.487	1-1/16	1/8
3/8	22-612	.690	.548	1-1/16	3/16
7/16	22-614	.690	.628	1-1/16	15/64
1/2	22-616	.716	.716	1-1/16	15/64

### STANDARD LENGTH SINGLE HEX OP'NGS.—MAGNETIC FOR HARDENED & SELF-TAPPING SCREWS Copper colored for positive identification

5/16	22-610M	.690	.487	1-1/16	1/8
3/8	22-612M	.690	.548	1-1/16	3/16
7/16	22-614M	.690	.628	1-1/16	15/64
1/2	22-616M	.716	.716	1-1/16	15/64

### ADAPTER Male square has spring plunger



No.	Length	Square Female	Square Male
2-4A	1-3/8	3/8	1/2

### EXTENSIONS Male squares have spring plunger



No.	Length	Square Male	Square Female
2-103A	3	3/8	3/8
2-106A	6	3/8	3/8

### HEX-SQ. SHANKS Male squares have spring plunger



No.	Length	Square Male	Hex Male
2-02A	2	3/8	1/4
2-33A	2-3/4	3/8	7/16
2-35A	5	3/8	7/16
2-38A	8	3/8	7/16

## "4" SERIES—1/2 Inch Square Drive—POWER DRIVE SOCKETS For All Types of Power Wrenches

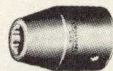
1/2"



Standard Length



Bolt Clearance Length



Standard Length Surface Drive



Bolt Clearance Length Surface Drive

Nominal Opening	No.	Maximum Dimensions		Nominal Dimensions	
		Diam. Drive End	Diam. Nose	Length Overall	Depth Opening

### STANDARD LENGTH SINGLE HEXAGON OPENINGS Finish—Rust Resistant

3/8	A4-612	.878	.608	1-1/2	5/16
7/16	A4-614	.878	.691	1-1/2	9/32
1/2	A4-616	.940	.776	1-1/2	21/64
9/16	A4-618	.940	.857	1-1/2	13/32
19/32	A4-619	.899	.899	1-1/2	5/16
5/8	A4-620	.944	.944	1-1/2	29/64
11/16	A4-622	1.025	1.025	1-1/2	29/64
3/4	A4-624	1.108	1.108	1-1/2	9/16
25/32	A4-625	1.128	1.128	1-1/2	7/16
13/16	A4-626	1.190	1.190	1-1/2	39/64
7/8	A4-628	1.271	1.271	1-5/8	39/64
15/16	A4-630	1.357	1.357	1-3/4	23/32
1	A4-632	1.440	1.440	1-3/4	35/64
1-1/16	A4-634	1.525	1.525	2	13/16
1-1/8	A4-636	1.565	1.565	2	13/16
1-3/16	A4-638	1.628	1.628	2	7/8
1-1/4	A4-640	1.690	1.690	2	29/32

### STANDARD LENGTH—THIN WALL DOUBLE HEXAGON OPENINGS Finish—Rust Resistant

7/16	34-1214	.888	.638	1- 1/2	9/32
1/2	34-1216	.888	.716	1- 1/2	21/64
9/16	34-1218	.888	.797	1- 1/2	13/32
5/8	34-1220	.888	.888	1-17/32	29/64
11/16	34-1222	.959	.959	1-17/32	29/64
3/4	34-1224	1.029	1.029	1- 9/16	9/16
13/16	34-1226	1.107	1.107	1-19/32	39/64
7/8	34-1228	1.187	1.187	1-41/64	39/64
15/16	34-1230	1.243	1.243	1-41/64	23/32

### STANDARD LENGTH DOUBLE SQUARE (8 PT.) OPENINGS Finish—Rust Resistant

3/8	4-812	.878	.715	1-1/2	5/16
7/16	4-814	.940	.817	1-1/2	15/64
1/2	4-816	1.003	.916	1-1/2	19/64
9/16	4-818	1.128	1.014	1-1/2	3/8
5/8	4-820	1.128	1.108	1-1/2	25/64
11/16	4-822	1.253	1.206	1-1/2	29/64
3/4	4-824	1.315	1.315	1-1/2	17/32
13/16	4-826	1.407	1.407	1-1/2	17/32
7/8	4-828	1.516	1.516	1-1/2	39/64
15/16	4-830	1.612	1.612	1-3/4	5/8
1	4-832	1.719	1.719	1-3/4	21/32

Nominal Opening	No.	Maximum Dimensions		Nominal Dimensions	
		Diam. Drive End	Diam. Nose	Length Overall	Depth Opening

### STANDARD LENGTH—SURFACE DRIVE SINGLE HEXAGON OPENINGS Finish—Rust Resistant

7/16	A4-614A	.878	.691	1-1/2	9/32
1/2	A4-616A	.940	.776	1-1/2	21/64
9/16	A4-618A	.940	.857	1-1/2	13/32
5/8	A4-620A	.944	.944	1-1/2	29/64
11/16	A4-622A	1.025	1.025	1-1/2	29/64
3/4	A4-624A	1.108	1.108	1-1/2	9/16
13/16	A4-626A	1.190	1.190	1-1/2	39/64
7/8	A4-628A	1.271	1.271	1-5/8	39/64

### BOLT CLEARANCE LENGTH SINGLE HEXAGON OPENINGS Finish—Rust Resistant

3/8	14-612	.878	.608	3-1/4	5/16
7/16	14-614	.878	.691	3-1/4	9/32
1/2	14-616	.940	.776	3-1/4	21/64
9/16	14-618	.940	.857	3-1/4	13/32
5/8	14-620	.940	.940	3-1/4	29/64
11/16	14-622	1.025	1.025	3-1/4	29/64
3/4	14-624	1.108	1.108	3-1/4	9/16
13/16	14-626	1.190	1.190	3-1/4	39/64
7/8	14-628	1.276	1.276	3-1/2	39/64
15/16	14-630	1.357	1.357	3-1/2	23/32
1	14-632	1.440	1.440	3-1/2	35/64

### BOLT CLEAR. LGTH—SURFACE DRIVE SINGLE HEXAGON OPENINGS Finish—Rust Resistant

7/16	A14-614A	.878	.691	3-1/4	9/32
1/2	A14-616A	.940	.776	3-1/4	21/64
9/16	A14-618A	.940	.857	3-1/4	13/32
5/8	A14-620A	.940	.940	3-1/4	29/64
3/4	A14-624A	1.108	1.108	3-1/4	9/16
13/16	A14-626A	1.190	1.190	3-1/4	39/64



# WILLIAMS

## "5" SERIES—5/8 Inch Square Drive—POWER DRIVE SOCKETS For All Types of Power Wrenches

5/8"

### ACCESSORIES

#### "4" SERIES—1/2" Square Drive

Male squares have spring plunger

#### ADAPTERS



No.	Length	Square Female	Square Male
4-2A	1- 1/2	1/2	3/8
4-5A	1-11/16	1/2	5/8

#### EXTENSIONS



No.	Length	Square Male	Square Female
4-105A	5	1/2	1/2
4-110A	10	1/2	1/2

#### HEXAGON SQUARE SHANKS



No.	Length	Square Male	Hex Male
4-33A	2-3/4	1/2	7/16
4-35A	5	1/2	7/16
4-53A	3	1/2	5/8
4-55A	5	1/2	5/8

#### "5" SERIES—5/8" Square Drive

Male squares have spring plunger

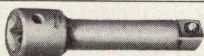
#### ADAPTERS

† Male Square has thru Pin Hole.



No.	Length	Square Female	Square Male
5-4A	1-7/8	5/8	1/2
5-6	2	5/8	†3/4

#### EXTENSIONS



No.	Length	Square Female	Square Male
5-106A	6	5/8	5/8
5-110A	10	5/8	5/8

#### HEXAGON SQUARE SHANKS



No.	Length	Square Male	Hex Male
5-53A	3	5/8	5/8
5-55A	5	5/8	5/8
5-58A	8	5/8	5/8
5-63A	3	5/8	3/4



Standard Length Hex and Double Sq. Openings



Standard Length Surface Drive

Nominal Opening	No.	Maximum Dimensions		Nominal Dimensions	
		Diam. Drive End	Diam. Nose	Length Overall	Depth Opening

#### STD. LENGTH—ALTERNATE DESIGN SINGLE HEXAGON OPENINGS Finish—Rust Resistant

1/2	A5-616	1.128	.816	1-1/2	21/64
9/16	A5-618	1.190	.851	1-1/2	13/32
19/32	A5-619	1.190	.899	1-1/2	5/16
5/8	A5-620	1.190	.940	1-1/2	29/64
11/16	A5-622	1.190	1.018	1-1/2	29/64
3/4	A5-624	1.190	1.108	1-1/2	9/16
13/16	A5-626	1.190	1.190	1-5/8	39/64
7/8	A5-628	1.271	1.271	1-5/8	39/64
15/16	A5-630	1.357	1.357	2	23/32
1	A5-632	1.440	1.440	2	35/64
1-1/16	A5-634	1.525	1.525	2	13/16
1-1/8	A5-636	1.608	1.608	2	13/16
1-1/4	A5-640	1.777	1.777	2	29/32
1-5/16	A5-642	1.853	1.853	2	49/64
1-3/8	A5-644	1.936	1.936	2-1/8	49/64
1-7/16	A5-646	2.003	2.003	2-1/4	49/64
1-1/2	A5-648	2.090	2.090	2-3/8	7/8

#### STANDARD LENGTH DOUBLE SQUARE (8 PT.) OPENINGS Finish—Rust Resistant

9/16	5-818	1.190	1.014	1-1/2	3/8
5/8	5-820	1.190	1.128	1-1/2	25/64
11/16	5-822	1.253	1.253	1-1/2	29/64
3/4	5-824	1.315	1.315	1-1/2	17/32
13/16	5-826	1.407	1.407	1-1/2	17/32
7/8	5-828	1.516	1.516	1-1/2	39/64
15/16	5-830	1.614	1.614	1-3/4	5/8
1	5-832	1.719	1.719	1-3/4	21/32
1-1/16	5-834	1.836	1.836	2	3/4
1-1/8	5-836	1.933	1.933	2	25/32

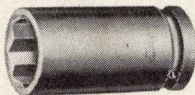
#### STANDARD LENGTH—SURFACE DRIVE SINGLE HEXAGON OPENINGS Finish—Rust Resistant

5/8	A5-620A	1.190	.940	1-1/2	29/64
11/16	A5-622A	1.190	1.018	1-1/2	29/64
3/4	A5-624A	1.190	1.108	1-1/2	9/16
13/16	A5-626A	1.190	1.190	1-5/8	39/64
7/8	A5-628A	1.271	1.271	1-5/8	39/64
15/16	A5-630A	1.357	1.357	2	23/32
1	A5-632A	1.440	1.440	2	35/64
1-1/16	A5-634A	1.525	1.525	2	13/16

# WILLIAMS

**"6" SERIES—3/4 Inch Square Drive—POWER DRIVE SOCKETS**  
For All Types of Power Wrenches

3/4"



**Bolt Clearance Length**



**Standard Length**



**Standard Length**

Nominal Opening	No.	Maximum Dimensions		Nominal Dimensions	
		Diam. Drive End	Diam. Nose	Length Overall	Depth Opening

**STANDARD LENGTH  
SINGLE HEXAGON OPENINGS  
Finish—Rust Resistant**

5/8	6-620	1.628	1.096	1-3/4	29/64
11/16	6-622	1.628	1.159	1-3/4	29/64
3/4	6-624	1.628	1.253	1-3/4	9/16
25/32	6-625	1.628	1.284	1-3/4	7/16
13/16	6-626	1.628	1.378	1-7/8	39/64
7/8	6-628	1.628	1.503	1-7/8	39/64
15/16	6-630	1.628	1.565	2	23/32
1	6-632	1.628	1.628	2	35/64
1-1/16	6-634	1.628	1.690	2	13/16
1-1/8	6-636	1.628	1.753	2-1/8	7/8
1-3/16	6-638	1.628	1.878	2-1/4	29/32
1-1/4	6-640	1.753	2.003	2-1/4	49/64
1-5/16	6-642	1.753	2.065	2-1/4	49/64
1-3/8	6-644	1.753	2.128	2-1/4	49/64
1-7/16	6-646	1.753	2.253	2-1/4	49/64
1-1/2	6-648	1.753	2.315	2-3/8	7/8
1-5/8	6-652	1.878	2.440	2-3/8	7/8
1-11/16	6-654	1.878	2.503	2-3/8	1

**BOLT CLEARANCE LENGTH  
SINGLE HEXAGON OPENINGS  
Finish—Rust Resistant**

5/8	16-620	1.628	1.096	3-1/4	29/64
11/16	16-622	1.628	1.159	3-1/4	29/64
3/4	16-624	1.628	1.253	3-1/4	9/16
13/16	16-626	1.628	1.378	3-1/4	39/64
7/8	16-628	1.628	1.503	3-1/2	39/64
15/16	16-630	1.628	1.565	3-1/2	23/32
1	16-632	1.628	1.628	3-1/2	35/64
1-1/16	16-634	1.628	1.690	3-1/2	13/16
1-1/8	16-636	1.628	1.753	3-1/2	7/8
1-3/16	16-638	1.628	1.878	3-1/2	29/32
1-1/4	16-640	1.753	2.003	3-1/2	49/64
1-5/16	16-642	1.753	2.065	3-1/2	49/64
1-7/16	16-646	1.753	2.253	3-1/2	49/64
1-1/2	16-648	1.753	2.315	3-1/2	7/8
1-5/8	16-652	1.753	2.440	3-1/2	7/8

Nominal Opening	No.	Maximum Dimensions		Nominal Dimensions	
		Diam. Drive End	Diam. Nose	Length Overall	Depth Opening

**STANDARD LENGTH  
DOUBLE SQUARE (8 PT.) OPENINGS  
Finish—Rust Resistant**

5/8	6-420	1.628	1.253	1-5/8	25/64
3/4	6-424	1.628	1.503	1-3/4	17/32
13/16	6-426	1.628	1.628	1-7/8	5/8
13/16	6-826	1.628	1.628	1-7/8	17/32
7/8	6-628	1.628	1.753	1-7/8	39/64
15/16	6-830	1.628	1.815	1-7/8	5/8
1	6-832	1.628	1.940	2	21/32
1-1/16	6-834	1.753	2.003	2	3/4
1-1/8	6-836	1.753	2.128	2-1/8	25/32
1-3/16	6-838	1.753	2.253	2-1/8	13/16
1-1/4	6-840	1.753	2.378	2-1/8	29/32
1-5/16	6-842	1.753	2.503	2-1/4	49/64
1-7/16	6-846	1.753	2.628	2-1/4	49/64

**ACCESSORIES  
Male Squares have thru Pin Hole  
ADAPTER**



No.	Length	Square Female	Square Male
6-7	2-1/2	3/4	1

**EXTENSIONS**



No.	Length	Square Male	Square Female
6-107	7	3/4	3/4
6-110	10	3/4	3/4
6-113	13	3/4	3/4

For Socket Servicing Budd Wheels in 3/4" Square Drive see Page 53



## "7" SERIES—1 Inch Square Drive—POWER DRIVE SOCKETS For All Types of Power Wrenches

1"



Standard  
Length



Standard  
Length

Nominal Opening	No.	Maximum Dimensions		Nominal Dimensions	
		Diam. Drive End	Diam. Nose	Length Overall	Depth Opening

### STANDARD LENGTH SINGLE HEXAGON OPENINGS Finish—Rust Resistant

3/4	7-624	2.003	1.440	2- 1/16	9/16
13/16	7-626	2.003	1.503	2- 3/16	39/64
7/8	7-628	2.003	1.534	2- 3/16	39/64
15/16	7-630	2.003	1.596	2- 3/16	23/32
1	7-632	2.003	1.753	2- 1/4	35/64
1- 1/16	7-634	2.003	1.753	2- 1/4	13/16
1- 1/8	7-636	2.128	1.815	2- 3/8	13/16
1- 3/16	7-638	2.128	1.878	2- 7/16	7/8
1- 1/4	7-640	2.128	2.003	2- 7/16	29/32
1- 5/16	7-642	2.128	2.065	2- 9/16	49/64
1- 3/8	7-644	2.253	2.128	2- 9/16	49/64
1- 7/16	7-646	2.253	2.253	2- 9/16	49/64
1- 1/2	7-648	2.253	2.315	2- 5/8	7/8
1- 9/16	7-650	2.253	2.378	2- 5/8	7/8
1- 5/8	7-652	2.253	2.440	2- 5/8	7/8
1-11/16	7-654	2.253	2.565	2-11/16	1
1- 3/4	7-656	2.253	2.628	2-11/16	1
1-13/16	7-658	2.253	2.753	2- 3/4	1
1- 7/8	7-660	2.253	2.753	2- 7/8	1- 3/32
1-15/16	7-662	2.253	2.878	2- 7/8	1- 3/32
2	7-664	2.253	3.003	2-15/16	1- 3/32
2- 1/16	7-666	2.253	3.003	3- 1/16	1-13/64
2- 1/8	7-668	2.378	3.128	3- 1/8	1-13/64
2- 3/16	7-670	2.378	3.253	3- 1/8	1-13/64
2- 1/4	7-672	2.378	3.253	3- 1/4	1- 5/16
2- 5/16	7-674	2.378	3.378	3- 5/16	1- 5/16
2- 3/8	7-676	2.378	3.503	3- 5/16	1- 5/16
2- 7/16	7-678	2.378	3.503	3- 1/2	1-25/64
2- 1/2	7-680	2.378	3.628	3- 1/2	1-25/64
2- 9/16	7-682	2.378	3.753	3- 1/2	1-25/64
2- 5/8	7-684	2.378	3.753	3-11/16	1- 1/2
2-11/16	7-686	2.378	3.878	3-11/16	1- 1/2
2- 3/4	7-688	2.378	3.878	3-11/16	1- 1/2
2-13/16	7-690	2.378	4.003	3- 7/8	1-39/64
2- 7/8	7-692	2.378	4.003	3-15/16	1-39/64
2-15/16	7-694	2.378	4.128	3-15/16	1-39/64
3	7-696	2.378	4.253	4- 1/16	1-23/32
3- 1/8	7-6100	2.378	4.378	4- 1/8	1-23/32
3- 1/4	7-6104	2.378	4.503	4- 1/8	1-23/32
3- 3/8	7-6108	2.378	4.628	4- 1/2	1-59/64
3- 1/2	7-6112	2.378	4.753	4- 1/2	1-59/64
3- 5/8	7-6116	2.378	5.003	4- 1/2	1-59/64

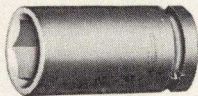
Nominal Opening	No.	Maximum Dimensions		Nominal Dimensions	
		Diam. Drive End	Diam. Nose	Length Overall	Depth Opening

### STANDARD LENGTH SQUARE & DOUBLE SQUARE OPENINGS Finish—Rust Resistant

3/4	7-424	2.003	1.878	2- 1/8	17/32
25/32	7-425	2.003	1.940	2- 1/8	17/32
13/16	7-426	2.003	1.940	2- 1/8	17/32
7/8	7-428	2.003	2.003	2- 1/4	39/64
15/16	7-430	2.128	2.065	2- 1/4	5/8
1	7-432	2.128	2.128	2- 5/16	21/32
1- 1/16	7-434	2.128	2.128	2- 5/16	3/4
1- 1/8	7-436	2.253	2.253	2- 1/2	25/32
1- 3/16	7-838	2.253	2.315	2- 1/2	13/16
1- 1/4	7-840	2.253	2.378	2- 1/2	29/32
1- 5/16	7-842	2.253	2.565	2- 1/2	49/64
1- 3/8	7-844	2.253	2.628	2- 1/2	49/64
1- 7/16	7-846	2.253	2.628	2- 1/2	49/64
1- 1/2	7-848	2.253	2.753	2- 5/8	7/8
1- 9/16	7-850	2.253	2.878	2- 5/8	7/8
1- 5/8	7-852	2.253	3.003	2- 5/8	7/8
1-11/16	7-854	2.253	3.128	2-13/16	1
1- 3/4	7-856	2.253	3.253	2-13/16	1
1-13/16	7-858	2.253	3.253	2-13/16	1
1- 7/8	7-860	2.253	3.378	3	1- 3/32
1-15/16	7-862	2.253	3.503	3- 1/16	1- 3/32
2	7-864	2.253	3.628	3- 1/16	1- 3/32
2- 1/16	7-866	2.253	3.628	3- 1/4	1-13/64
2- 1/8	7-868	2.253	3.753	3- 1/4	1-13/64
2- 3/16	7-870	2.253	3.878	3- 1/4	1-13/64
2- 1/4	7-872	2.253	3.878	3- 7/16	1- 5/16
2- 5/16	7-874	2.378	4.003	3- 7/16	1- 5/16
2- 3/8	7-876	2.378	4.128	3- 1/2	1- 5/16
2- 3/4	7-888	2.378	4.503	3- 7/8	1- 1/2

## "7" SERIES—1 Inch Square Drive—POWER DRIVE SOCKETS For All Types of Power Wrenches

1"



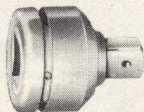
**Bolt Clearance Length**

Nominal Opening	No.	Maximum Dimensions		Nominal Dimensions	
		Diam. Drive End	Diam. Nose	Length Overall	Depth Opening

**BOLT CLEARANCE LENGTH  
SINGLE HEXAGON OPENINGS  
Finish—Rust Resistant**

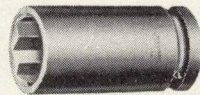
7/8	17-628	2.003	1.440	3	39/64
15/16	17-630	2.003	1.596	3	23/32
1	17-632	2.003	1.753	3	35/64
1- 1/16	17-634	2.003	1.753	3	13/16
1- 1/8	17-636	2.128	1.815	3	13/16
1- 3/16	17-638	2.128	1.878	3	7/8
1- 1/4	17-640	2.128	2.003	3	29/32
1- 5/16	17-642	2.128	2.065	3-1/2	49/64
1- 3/8	17-644	2.253	2.128	3-1/2	49/64
1- 7/16	17-646	2.253	2.253	3-1/2	49/64
1- 1/2	17-648	2.253	2.315	3-1/2	7/8
1- 9/16	17-650	2.253	2.378	3-1/2	7/8
1- 5/8	17-652	2.253	2.440	3-1/2	7/8
1-11/16	17-654	2.253	2.565	3-5/8	1
1- 3/4	17-656	2.253	2.625	3-5/8	1
1-13/16	17-658	2.253	2.753	3-5/8	1
1- 7/8	17-660	2.253	2.753	3-7/8	1- 3/32
1-15/16	17-662	2.253	2.878	3-7/8	1- 3/32
2	17-664	2.253	3.003	3-7/8	1- 3/32
2- 1/16	17-666	2.253	3.003	4-1/8	1-13/64
2- 1/8	17-668	2.378	3.128	4-1/8	1-13/64
2- 3/16	17-670	2.378	3.253	4-1/8	1-13/64
2- 1/4	17-672	2.378	3.253	4-3/8	1- 5/16
2- 5/16	17-674	2.378	3.378	4-3/8	1- 5/16
2- 3/8	17-676	2.378	3.503	4-3/8	1- 5/16

**ADAPTER**



**Male Square has thru Pin Hole**

No.	Length	Square Female	Square Male
7-6	3	1	3/4



**Bolt Clearance Length**

Nominal Opening	No.	Maximum Dimensions		Nominal Dimensions	
		Diam. Drive End	Diam. Nose	Length Overall	Depth Opening

**BOLT CLEARANCE LENGTH  
SQUARE—DOUBLE SQUARE OPENINGS  
Finish—Rust Resistant**

3/4	17-424	2.003	1.878	3	17/32
25/32	17-425	2.003	1.940	3	17/32
13/16	17-426	2.003	1.940	3	17/32
7/8	17-428	2.003	2.003	3	39/64
15/16	17-430	2.128	2.065	3	5/8
1	17-432	2.128	2.128	3	21/32
1- 1/16	17-434	2.128	2.128	3	3/4
1- 1/8	17-436	2.253	2.253	3	25/32
1- 3/16	17-438	2.253	2.315	3	13/16
1- 1/4	17-440	2.253	2.378	3	29/32
1- 5/16	17-442	2.253	2.565	3-1/2	49/64
1- 3/8	17-444	2.253	2.628	3-1/2	49/64
1- 7/16	17-446	2.253	2.628	3-1/2	49/64
1- 1/2	17-448	2.253	2.753	3-1/2	7/8
1- 9/16	17-450	2.253	2.878	3-1/2	7/8
1- 5/8	17-452	2.253	3.003	3-1/2	7/8
1-11/16	17-454	2.253	3.128	3-5/8	1
1- 3/4	17-456	2.253	3.253	3-5/8	1
1-13/16	17-458	2.253	3.253	3-5/8	1
1- 7/8	17-460	2.253	3.378	3-7/8	1- 3/32
1-15/16	17-462	2.253	3.503	3-7/8	1- 3/32
2	17-464	2.253	3.628	3-7/8	1- 3/32
2- 1/16	17-466	2.253	3.628	4-1/8	1-13/64
2- 1/8	17-468	2.253	3.753	4-1/8	1-13/64
2- 3/16	17-470	2.253	3.878	4-1/8	1-13/64
2- 1/4	17-472	2.253	3.878	4-3/8	1- 5/16
2- 5/16	17-474	2.378	4.003	4-3/8	1- 5/16
2- 3/8	17-476	2.378	4.128	4-3/8	1- 5/16

**EXTENSION**



**Male Square has thru Pin Hole**

No.	Length	Square Female	Square Male
7-107	7	1	1



## "8" SERIES—1-1/2 Inch Square Drive—POWER DRIVE SOCKETS For All Types of Power Wrenches

### 3/4" and 1" SQ. DRIVE SOCKETS FOR SERVICING BUDD WHEELS

1 1/2"



6-BW7  
7-BW9



16-BW426  
17-BW426



6-BW4  
7-BW4

Sockets 6 or 7-BW4 and 6-BW7 or 7-BW9 each have two openings (13/16" sq. and 1-1/2" hex) in the same socket.

They are designed for quick application and removal of all "on-the-road" Budd type wheels.

For checking the tightness of installed wheels, the 1-1/2" hexagon opening of either 6 or 7-BW4 or 6-BW7 or 7-BW9 may be used with 16 or 17-BW426 to tighten the square-ended Budd stud separately.



Standard Length

Nominal Opening	No.	Maximum Dimensions		Nominal Dimensions	
		Diam. Drive End	Diam. Nose	Length Overall	Depth Opening

### STANDARD LENGTH SINGLE HEXAGON OPENINGS Finish—Rust Resistant

1- 5/16	8-642	3.253	2.503	3-1/8	49/64
1- 3/8	8-644	3.253	2.753	3-1/8	49/64
1- 7/16	8-646	3.253	2.753	3-1/8	49/64
1- 1/2	8-648	3.253	2.878	3-1/8	7/8
1- 5/8	8-652	3.253	3.003	3-1/8	7/8
1-11/16	8-654	3.253	3.003	3-1/8	1
1-13/16	8-658	3.253	3.128	3-1/4	1
1- 7/8	8-660	3.253	3.128	3-1/4	1- 3/32
2	8-664	3.253	3.253	3-3/4	1- 3/32
2- 1/16	8-666	3.253	3.503	3-7/8	1-13/64
2- 1/8	8-668	3.253	3.503	3-7/8	1-13/64
2- 3/16	8-670	3.253	3.503	3-7/8	1-13/64
2- 1/4	8-672	3.253	3.753	4	1- 5/16
2- 3/8	8-676	3.253	3.878	4-1/8	1- 5/16
2- 7/16	8-678	3.253	3.878	4-1/8	1-25/64
2- 9/16	8-682	3.253	4.003	4-1/4	1-25/64
2- 5/8	8-684	3.253	4.128	4-1/4	1- 1/2
2- 3/4	8-688	3.253	4.263	4-3/8	1- 1/2
2-15/16	8-694	3.253	4.503	4-1/2	1-39/64
3	8-696	3.253	4.503	4-5/8	1-23/32
3- 1/8	8-6100	3.253	4.753	4-5/8	1-23/32
3- 3/8	8-6108	3.253	5.003	4-5/8	1-59/64
3- 1/2	8-6112	3.253	5.128	4-5/8	1-59/64

### PINS AND RINGS



Drive Size	Socket and Extension Nos.	Pin Type	Ring Type
3/4"	6-620 thru 6-638	B	A-1
	6-640 thru 6-654	C	
	6-420 thru 6-426	B	
	6-826 thru 6-830	B	
	6-832 thru 6-846	C	
	16-620 thru 16-638	B	
	16-640 thru 16-652	C	
	All Adapters	C	
	All Extensions	C	
		C	
1"	Fit all sizes	D	B-1
1-1/2"	Fit all sizes	E	C-1

### REPLACEMENT PARTS



Pin Plunger



Spring



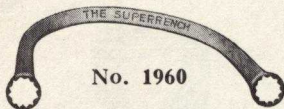
Plug

Sets consisting of a plunger, spring and brass plug are packed 24 sets to a box.

Type Plunger	Set Number for Square Drive Size			
	1/4"	3/8"	1/2"	5/8"
Pin	PA-O-P	PA-2-P	PA-4-P	PA-5-P

# WILLIAMS

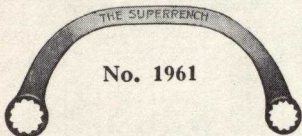
## WILLIAMS' SPECIAL SUPERRENCHES® Selected Alloy Steel



No. 1960

**For Starter and Manifold Nuts**  
12-Point Openings, 9/16 and 5/8"  
Length, 7"

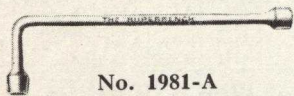
For starter and manifold nuts. All models Chrysler and Dodge; DeSoto and Plymouth. Also useful for starters and manifolds on many other passenger automobiles. Drop-forged from Selected Alloy Steel, heat-treated, chrome-plated.



No. 1961

**For Chevrolet Starter Nuts**  
12-Point Openings, 5/8 and 3/4"  
Length, 7-1/2"

For starter nuts on Chevrolets. Also useful for starters on many other passenger automobiles. Drop-forged from Selected Alloy Steel, heat-treated, chrome-plated.



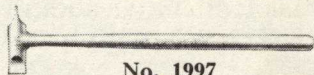
No. 1981-A

**For Ford V-8, 6 and Mercury Connecting Rods**  
3" Offset, 11-1/2" long

Spin nuts till engaged (short arm for lever); reverse wrench and tighten (long arm for lever).

Special thin design Sockets to handle clearance problem. Forged from Selected Alloy Steel, heat-treated, chrome-plated.

6-Point Openings, 9/16 and 9/16". Services all Ford 6, all Ford V-8 (except 60 H.P.) and all Mercury connecting rod nuts. Very handy for manifold nuts and valve cap covers.



No. 1997

**For Slotted Anchor Pins, Etc.**

Blade Tips, 1/16 x 13/32"  
Length, 6"

For slotted anchor pins, drag links, steering post and other jobs where regular screw drivers cannot be used. Also excellent as a glazier's tool.

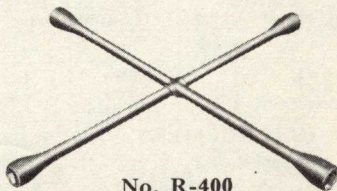


No. 1998B

**For Star Nut, Etc.  
Bendix Hydraulic**

Blade Tips, 5/64 x 15/32"  
Length, 8"

Offset to service Star Nut Eccentric, all Bendix Hydraulic.



No. R-400

**FOUR-WAY RIM WRENCH**

With hexagon socket openings 3/4, 13/16, 7/8 and 15/16", Williams Four-Way Rim Wrench will service wheels on all popular passenger cars and light trucks. Overall arm lengths of 20" offer ample clearance and leverage. Made of selected steel—finish, chrome-color enamel.



# WILLIAMS

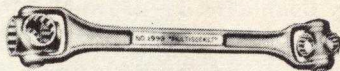
## WILLIAMS' SPECIAL TOOLS Selected Alloy Steel



**No. SC-614**  
**For Cadillac**  
**Connecting Rod**  
1/2" Square Drive

7/16" 6-Point Opening.

The Cadillac Connecting Rod Nut requires an unusually strong socket for servicing. Services all models Cadillacs, 1937-1948. Made from Selected Alloy Steel, heat-treated and chrome-plated. Length, 3-1/8".



**No. 1999**  
**"MULTISOCKET" WRENCH**  
**EIGHT-IN-ONE**

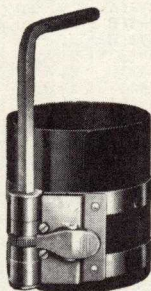
**8 Different 12-Point Openings**  
Small Head; 7/16, 1/2, 9/16, 19/32"  
Large Head, 5/8, 11/16, 3/4, 7/8"

Swivel heads, with index spring to retain working position, permit handle to be operated at practically any angle desired.

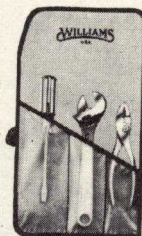
The entire wrench is drop-forged from selected steels, heat-treated and finished in cadmium-plate. Length, 9 inches.

**No. RC-50**  
**PISTON**  
**RING**  
**COMPRESSOR**

**For**  
**Piston Diameters**  
2-1/8 to 5 Inches



Has a 3-1/2" high compression band of highest grade clock-spring steel. Takes all rings at one time, including skirt ring on Pontiac, Ford, Hudson, etc. Two tension bands eliminate flare-out at bottom when rings leave the compressor. With beaded edge the compressor cannot enter the cylinder with the piston. Hardened ratchet is operated with a 1/4" square offset key wrench. Double friction brake adjustment provides additional control. The self-locking ratchet pawl is made of oil tempered spring steel. Individually packaged, operating instructions included.



**GENERAL PURPOSE**  
**UTILITY SET**

**SET No. APS-3R**  
**In Leatherette Roll**

**SET No. APS-3B**  
**In Cardboard Box**

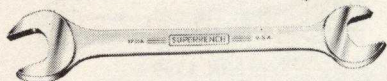
An ideal set for numerous small jobs around home and office. Also for general automobile use. Convenient size for glove compartment.

Contains one each No. 24 4" Screw Driver with plastic handle, 8 inch Locking Adjustable Wrench and No. 6 6" Combination Slip-joint Pliers.

# WILLIAMS

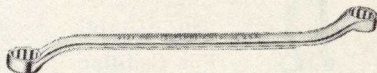
## WILLIAMS' METRIC SUPERRENCHES Selected Alloy Steel

### Double Head — 15° Angle



Jaws are long and thin. Drop-forged from Selected Alloy Steel, heat-treated, chrome-plated.

### Double Offset Pattern



Thin head walls. Drop-forged from Selected Alloy Steel, heat-treated and chrome-plated.

No.	Metric Openings m/m	Head Thick.	Overall Length
<b>M1021</b>	6 & 8	5/32	3-13/16
<b>M1021T</b>	8 & 10	3/16	4- 1/4
<b>M1023</b>	10 & 12	7/32	5- 1/8
<b>M1025</b>	12 & 14	1/4	6- 1/4
<b>M1027</b>	14 & 15	17/64	6- 7/8
<b>M1028</b>	16 & 18	19/64	8- 1/4
<b>M1028T</b>	17 & 19	5/16	9
<b>M1029</b>	18 & 20	11/32	9- 3/4
<b>M1031</b>	20 & 22	11/32	9- 3/4
<b>M1031T</b>	21 & 23	3/8	10- 1/2
<b>M1032</b>	22 & 25	13/32	11- 3/8
<b>M1033</b>	24 & 26	13/32	11- 3/8
<b>M1035</b>	25 & 28	7/16	12- 1/4

No.	Metric Openings m/m	Diam. Head		Overall Length
		Small	Large	
<b>M8021</b>	8 & 10	33/64	5/8	7-1/2
<b>M8723</b>	9 & 11	37/64	21/32	7-3/4
<b>M8023</b>	10 & 12	21/32	47/64	8-1/16
<b>M8025A</b>	12 & 13	47/64	53/64	8-11/16
<b>M8725B</b>	13 & 14	47/64	53/64	8-11/16
<b>M8025</b>	13 & 15	47/64	7/8	9-1/16
<b>M8727</b>	14 & 16	53/64	29/32	9-3/8
<b>M8727A</b>	15 & 17	29/32	1	9-3/4
<b>M8729</b>	16 & 18	29/32	1- 5/64	10-1/8
<b>M8029</b>	17 & 19	1	1- 5/64	10-1/2
<b>M8729A</b>	18 & 19	1- 5/64	1-11/64	11-5/8
<b>M8731A</b>	18 & 20	1- 5/64	1-11/64	11-5/8
<b>M8031B</b>	19 & 20	1- 1/8	1-11/64	12-1/2
<b>M8731B</b>	21 & 22	1- 1/4	1-21/64	13-3/8
<b>M8033</b>	23 & 24	1- 1/4	1-13/32	13-7/8
<b>M8033C</b>	23 & 25	1- 1/4	1-13/32	13-7/8
<b>M8034</b>	23 & 27	1-21/64	1- 1/2	15-1/2
<b>M8735A</b>	25 & 28	1-13/32	1- 9/16	16
<b>M8735</b>	26 & 29	1- 1/2	1- 9/16	16-5/8
<b>M8039</b>	30 & 32	1- 9/16	1-27/32	18-3/4

## WILLIAMS' 1/2 Inch SQUARE DRIVE METRIC SUPERSOCKETS®

### Selected Alloy Steel



12 point

These Sockets have thin walls for work in close quarters. They are accurately made from Selected Alloy Steel, heat-treated and chrome-plated.

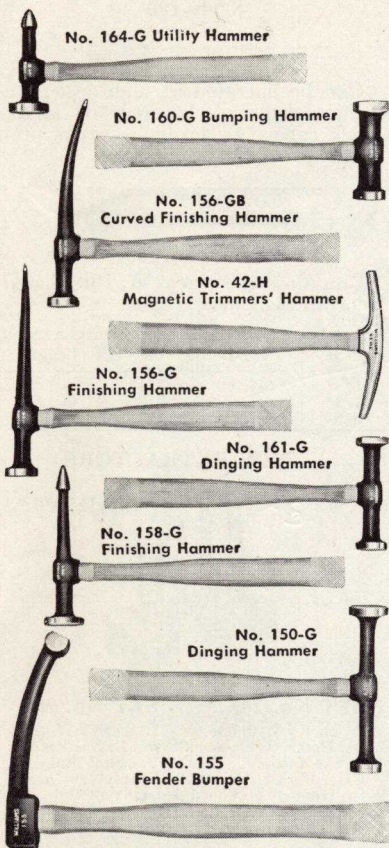
For the complete range of 1/2" square drive handles and drivers to fit these sockets, see page 24.

No.	Metric Openings m/m	Nose Diameter	Length
<b>STM-1210</b>	10	19/32	1- 1/2
<b>STM-1211</b>	11	41/64	1- 1/2
<b>STM-1212</b>	12	11/16	1- 1/2
<b>STM-1213</b>	13	3/4	1- 1/2
<b>STM-1214</b>	14	25/32	1- 1/2
<b>STM-1215</b>	15	27/32	1-17/32
<b>STM-1216</b>	16	57/64	1-17/32
<b>STM-1217</b>	17	15/16	1-17/32
<b>STM-1218</b>	18	63/64	1- 9/16
<b>STM-1219</b>	19	1- 1/32	1- 9/16
<b>STM-1220</b>	20	1- 1/16	1- 9/16
<b>STM-1221</b>	21	1- 1/8	1-19/32
<b>STM-1222</b>	22	1- 3/16	1-41/64
<b>STM-1223</b>	23	1- 7/32	1-41/64

No.	Metric Openings m/m	Nose Diameter	Length
<b>STM-1224</b>	24	1-15/64	1-41/64
<b>STM-1225</b>	25	1- 5/16	1-11/16
<b>STM-1226</b>	26	1-13/32	1-27/32
<b>STM-1227</b>	27	1-29/64	1-27/32
<b>STM-1228</b>	28	1-31/64	1-27/32
<b>STM-1229</b>	29	1-33/64	1-27/32
<b>STM-1230</b>	30	1-39/64	1-29/32
<b>STM-1231</b>	31	1-41/64	1-29/32
<b>STM-1232</b>	32	1-43/64	2
<b>STM-1233</b>	33	1- 3/4	2
<b>STM-1234</b>	34	1-25/32	2- 1/8
<b>STM-1235</b>	35	1-27/32	2- 1/8
<b>STM-1236</b>	36	1-57/64	2- 1/8

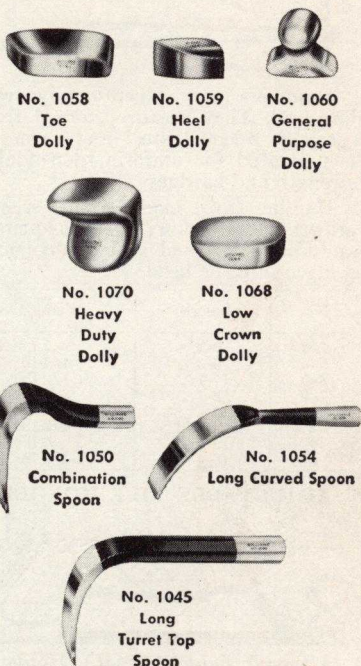


## WILLIAMS' BODY and FENDER HAMMERS



No.	FACES		Length Head Overall	Handle Length
	Round	Square		
150-G	1-1/4	.....	6	11-1/2
155	.....	.....	8-1/2	15
156-G	1-1/4	.....	8	11-1/2
156-GB	1-1/4	.....	8	11-1/2
158-G	1-9/16	.....	6-3/4	11-1/2
160-G	1-1/4	1-3/16	4	11-1/2
161-G	1-1/4	1-1/8	4	11-1/2
164-G	1-9/16	.....	4	11-1/2
42-H	.....	.....	5-7/8	11

## WILLIAMS' DOLLY BLOCKS and SPOONS



Drop-forged from selected steel. Blocks are full polished. Bodies of Spoons are finished in black, blade ends are full polished.

### DOLLY BLOCKS

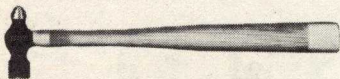
Number	Size
1058	4-3/4 x 2-1/4 x 1-1/16
1059	3-1/8 x 2-3/8 x 1-7/16
1060	2-7/8 x 2-3/8 x 2-1/4
1068	2-3/4 x 1-5/8 x 4
1070	3-5/8 x 3-1/4 x 2-1/2

### SPOONS

No.	Length Overall	Face
1045	10	1-7/8 x 5-1/4 x 3/16
1050	4-3/4	1-3/4 x 5-1/2
1054	10-1/2	2 x 7

# WILLIAMS

## WILLIAMS' BALL PEIN HAMMERS



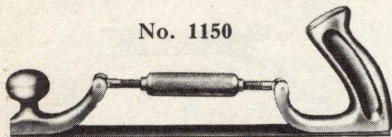
Hammers are exceptionally well balanced. They are drop-forged from specially selected steel and carefully heat-treated for uniform, dependable strength and hardness.

Handles are made from second growth white hickory, clear lacquered, and carefully fitted and permanently wedged into the head.

No.	Length	Weight
7-0	9-3/4	2 oz.
5-0	9-3/4	1/4 lb.
3-0	11-1/2	1/2 lb.
2-0	13-1/2	3/4 lb.
0	14	1 lb.
2	14-1/2	1-1/2 lbs.
4	15-1/2	2 lbs.
6	16	2-1/2 lbs.

## ADJUSTABLE FILE HOLDER

No. 1150



Although light in weight, Holder is extremely rigid and comfortably balanced. File may be flexed either way to the maximum point of safety against breakage. Before flexing, the bolt which attaches blade at the rear of the Holder should be loosened.

## 14" STANDARD FLEXIBLE MILLED CURVED-TOOTH FILE



This type of file is most universally used in auto body repair work. Curved teeth are milled on both sides. These files are made from special alloy steel, precision milled and are self clearing. They leave a smooth finish. Designed for use with Williams' Adjustable File Holder No. 1150.

## WILLIAMS' POWER AUGER BITS Style 100



Can be operated at high speeds in electric drills of 1/4-inch or larger chuck capacity. Hexagon shanks prevent slipping in the chuck.



### SET No. 106

Contains one each of Bits listed below in clear plastic tube.

Size	Length	Size	Length
3/8"	5-1/4	3/4"	5-1/4
1/2"	5-1/4	7/8"	5-1/4
5/8"	5-1/4	1"	5-1/4

## SCREW EXTRACTORS

Style 200



### SET No. 205

1 each Williams Screw Extractors Nos. 1, 2, 3, 4 and 5.

Extractors in this set will remove broken screws 9/16" and smaller.

### SET No. 206

1 each Williams Screw Extractors Nos. 1, 2, 3, 4, 5 and 6.

Extractors in this set will remove broken screws 5/8" and smaller.

Ex-tractor No.	For Use on Screw Sizes	For Use on Pipe Sizes	Diam. Small End	Size Drill to Use
1	Nos. 8 & 10	.....	.054	5/64
2	No. 12 & 1/4	.....	.080	7/64
3	5/16	.....	1/8	5/32
4	3/8	.....	1/8	1/4
5	7/16, 1/2, 9/16	1/8 & 1/4	15/64	17/64
6	5/8	3/8	3/8	13/32
7	3/4, 7/8, 1	1/2	1/2	17/32
8	1 1/8, 1 1/4	3/4	3/4	13/16
9	1-1/2	1	1	1 1/16



# WILLIAMS

## WILLIAMS' HIGH SPEED DRILLS Style H-400



### Straight Shank Jobbers' Length

Williams High Speed Drills are suitable for all general purposes. They have bright finished margins and shanks, black flutes and black lands. Only High Speed Drills should be used for electric or other portable drilling, or in machines operating at high speeds. Fast cutting speeds will not affect their hardness.

Diameter	Decimal Equivalent	Length Overall	Length of Twist
1/64	.0156	3/4	3/16
1/32	.0312	1-3/8	1/2
3/64	.0469	1-3/4	3/4
1/16	.0625	1-7/8	7/8
5/64	.0781	2	1
3/32	.0937	2-1/4	1-1/4
7/64	.1094	2-5/8	1-1/2
1/8	.1250	2-3/4	1-5/8
9/64	.1406	2-7/8	1-3/4
5/32	.1562	3-1/8	2
11/64	.1719	3-1/4	2-1/8
3/16	.1875	3-1/2	2-5/16
13/64	.2031	3-5/8	2-7/16
7/32	.2187	3-3/4	2-1/2
15/64	.2344	3-7/8	2-5/8
1/4	.2500	4	2-3/4
17/64	.2656	4-1/8	2-7/8
9/32	.2812	4-1/4	2-15/16
19/64	.2969	4-3/8	3-1/16
5/16	.3125	4-1/2	3-3/16
21/64	.3281	4-5/8	3-5/16
11/32	.3437	4-3/4	3-7/16
23/64	.3594	4-7/8	3-1/2
3/8	.3750	5	3-5/8
25/64	.3906	5-1/8	3-3/4
13/32	.4062	5-1/4	3-7/8
27/64	.4219	5-3/8	3-15/16
7/16	.4375	5-1/2	4-1/16
29/64	.4531	5-5/8	4-3/16
15/32	.4687	5-3/4	4-5/16
31/64	.4844	5-7/8	4-3/8
1/2	.5000	6	4-1/2

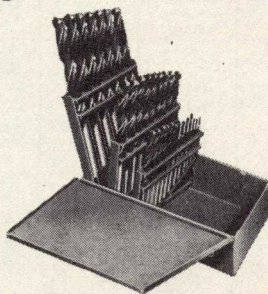
## WILLIAMS' MASONRY DRILLS Style 300 — Carbide Tipped



They produce clean, accurate holes in all types of masonry materials. Tipped diameters are oversize to provide for clearance in installing anchors, expansion shields and toggle bolts.

Nom. Diam.	Actual Diam.	Extreme Length	Shank Diam.	Shank Length
1/8	.130	2-1/2	1/8	1-1/4
3/16	.198	3	3/16	1-1/4
1/4	.260	4	1/4	1-3/8
5/16	.328	4	1/4	1-1/2
3/8	.390	4	1/4	1-1/2
7/16	.458	6	3/8	1-5/8
1/2	.525	6	3/8	1-5/8
9/16	.587	6	7/16	1-5/8
5/8	.650	6	1/2	1-5/8
11/16	.713	6	1/2	1-5/8
3/4	.775	6	1/2	1-5/8
7/8	.905	6	1/2	1-5/8
1	1.030	6	1/2	1-5/8
1 1/8	1.160	6	1/2	1-5/8
1 1/4	1.285	10	1/2	1-5/8
1 1/2	1.535	10	1/2	1-5/8

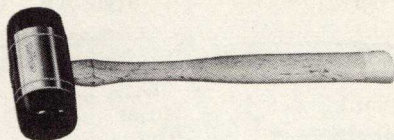
## HIGH SPEED DRILL SETS Straight Shank—Jobbers' Length



Set Number			No. of Drills	Drill Sizes
With Drills in Folding Case	Drills Only	Folding Case Only		
21-H13	21	H-13	13	1/16 to 1/4 by 64ths
4B-H21	4B	H-21	21	1/16 to 3/8 by 64ths
5B-H29	5B	H-29	29	1/16 to 1/2 by 64ths
6B-H15	6B	H-15	15	1/16 to 1/2 by 32nds

# WILLIAMS

## WILLIAMS' SOFT-FACE HAMMERS With Interchangeable Tips



These tips are highly resistant to common industrial solvents and acids. They are non-explosive and electrically non-conductive. Hickory handles used throughout.

Series 100, 150, 153, 200, 250 and 300 have aluminum alloy heads with bright finish. Series 105, 155, 205, 207, 255 and 305 have die-cast zinc-alloy heads with bright finish.

Series 152 and 202 have chrome-plated brass heads and are shot loaded offering 30% more driving power with less worker fatigue, fewer blows, less rebound and less shock.

### HAMMER BODIES ONLY



No.	Head		Handle Length
	Diam.	Length	
100	1	3-1/2	11-3/8
105	1	3-1/2	11-3/8
150	1-1/2	4-3/8	13
152	1-1/2	5-3/8	13
153	1-1/2	7	13
155	1-1/2	4-3/8	13
200	2	5	13

No.	Head		Handle Length
	Diam.	Length	
202	2	7	13
205	2	5	13
207	2	6-3/8	15
250	2-1/2	6-1/4	15
255	2-1/2	6-1/4	13
300	3	7	14
305	3	7	14



### TIPS ONLY



1" Diam.		1-1/2" Diam.		2" Diam.		2-1/2" Diam.		3" Diam.		Tip	
New No.	Old No.	New No.	Old No.	New No.	Old No.	New No.	Old No.	New No.	Old No.	Hardness	Color
10-SS	.....	15-SS	.....	20-SS	.....	25-SS	.....	30-SS	.....	Super Soft	Gray
10-S	10-1	15-S	15-1	20-S	20-1	25-S	25-1	30-S	30-1	Soft	Brown
10-M	10-2	15-M	15-2	20-M	20-2	25-M	25-2	30-M	30-2	Medium	Red
10-T	10-3	15-T	15-3	20-T	20-3	25-T	25-3	30-T	30-3	Tough	Green
10-N	10-4	15-N	15-4	20-N	20-4	25-N	25-4	30-N	30-4	Med. Hard	Cream
10-H	10-5	15-H	15-5	20-H	20-5	25-H	25-5	30-H	30-5	Hard	Black
10-XH	.....	15-XH	.....	20-XH	.....	25-XH	.....	30-XH	.....	Extra Hard	Yellow





## WILLIAMS' SOFT-FACE HAMMERS

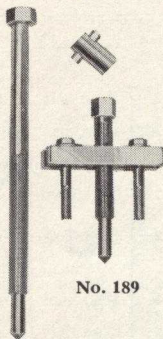
### With Interchangeable Tips

### SOFT-FACE HAMMERS COMPLETE WITH TIPS

Number	Head Diam.	Tip		Weight Each	Number	Head Diam.	Tip		Weight Each
		Hardness	Color				Hardness	Color	
100-SS	1	Super Soft	Gray	5 oz.	*202-SS	2	Super Soft	Gray	2-1/2 lb.
100-S	1	Soft	Brown	5 oz.	*202-S	2	Soft	Brown	2-1/2 lb.
100-M	1	Medium	Red	5 oz.	*202-M	2	Medium	Red	2-1/2 lb.
100-T	1	Tough	Green	5 oz.	*202-T	2	Tough	Green	2-1/2 lb.
100-N	1	Med. Hard	Cream	5 oz.	*202-N	2	Med. Hard	Cream	2-1/2 lb.
100-H	1	Hard	Black	5 oz.	*202-H	2	Hard	Black	2-1/2 lb.
100-XH	1	Extra Hard	Yellow	5 oz.	*202-XH	2	Extra Hard	Yellow	2-1/2 lb.
105-SS	1	Super Soft	Gray	8 oz.	205-SS	2	Super Soft	Gray	2 lb.
105-S	1	Soft	Brown	8 oz.	205-S	2	Soft	Brown	2 lb.
105-M	1	Medium	Red	8 oz.	205-M	2	Medium	Red	2 lb.
105-T	1	Tough	Green	8 oz.	205-T	2	Tough	Green	2 lb.
105-N	1	Med. Hard	Cream	8 oz.	205-N	2	Med. Hard	Cream	2 lb.
105-H	1	Hard	Black	8 oz.	205-H	2	Hard	Black	2 lb.
105-XH	1	Extra Hard	Yellow	8 oz.	205-XH	2	Extra Hard	Yellow	2 lb.
150-SS	1-1/2	Super Soft	Gray	3/4 lb.	207-SS	2	Super Soft	Gray	3 lb.
150-S	1-1/2	Soft	Brown	3/4 lb.	207-S	2	Soft	Brown	3 lb.
150-M	1-1/2	Medium	Red	3/4 lb.	207-M	2	Medium	Red	3 lb.
150-T	1-1/2	Tough	Green	3/4 lb.	207-T	2	Tough	Green	3 lb.
150-N	1-1/2	Med. Hard	Cream	3/4 lb.	207-N	2	Med. Hard	Cream	3 lb.
150-H	1-1/2	Hard	Black	3/4 lb.	207-H	2	Hard	Black	3 lb.
150-XH	1-1/2	Extra Hard	Yellow	3/4 lb.	207-XH	2	Extra Hard	Yellow	3 lb.
*152-SS	1-1/2	Super Soft	Gray	1-1/4 lb.	250-SS	2-1/2	Super Soft	Gray	2 lb.
*152-S	1-1/2	Soft	Brown	1-1/4 lb.	250-S	2-1/2	Soft	Brown	2 lb.
*152-M	1-1/2	Medium	Red	1-1/4 lb.	250-M	2-1/2	Medium	Red	2 lb.
*152-T	1-1/2	Tough	Green	1-1/4 lb.	250-T	2-1/2	Tough	Green	2 lb.
*152-N	1-1/2	Med. Hard	Cream	1-1/4 lb.	250-N	2-1/2	Med. Hard	Cream	2 lb.
*152-H	1-1/2	Hard	Black	1-1/4 lb.	250-H	2-1/2	Hard	Black	2 lb.
*152-XH	1-1/2	Extra Hard	Yellow	1-1/4 lb.	250-XH	2-1/2	Extra Hard	Yellow	2 lb.
153-SS	1-1/2	Super Soft	Gray	1 lb.	255-SS	2-1/2	Super Soft	Gray	4 lb.
153-S	1-1/2	Soft	Brown	1 lb.	255-S	2-1/2	Soft	Brown	4 lb.
153-M	1-1/2	Medium	Red	1 lb.	255-M	2-1/2	Medium	Red	4 lb.
153-T	1-1/2	Tough	Green	1 lb.	255-T	2-1/2	Tough	Green	4 lb.
153-N	1-1/2	Med. Hard	Cream	1 lb.	255-N	2-1/2	Med. Hard	Cream	4 lb.
153-H	1-1/2	Hard	Black	1 lb.	255-H	2-1/2	Hard	Black	4 lb.
153-XH	1-1/2	Extra Hard	Yellow	1 lb.	255-XH	2-1/2	Extra Hard	Yellow	4 lb.
155-SS	1-1/2	Super Soft	Gray	1-1/4 lb.	300-SS	3	Super Soft	Gray	3-1/2 lb.
155-S	1-1/2	Soft	Brown	1-1/4 lb.	300-S	3	Soft	Brown	3-1/2 lb.
155-M	1-1/2	Medium	Red	1-1/4 lb.	300-M	3	Medium	Red	3-1/2 lb.
155-T	1-1/2	Tough	Green	1-1/4 lb.	300-T	3	Tough	Green	3-1/2 lb.
155-N	1-1/2	Med. Hard	Cream	1-1/4 lb.	300-N	3	Med. Hard	Cream	3-1/2 lb.
155-H	1-1/2	Hard	Black	1-1/4 lb.	300-H	3	Hard	Black	3-1/2 lb.
155-XH	1-1/2	Extra Hard	Yellow	1-1/4 lb.	300-XH	3	Extra Hard	Yellow	3-1/2 lb.
200-SS	2	Super Soft	Gray	1-1/2 lb.	305-SS	3	Super Soft	Gray	6 lb.
200-S	2	Soft	Brown	1-1/2 lb.	305-S	3	Soft	Brown	6 lb.
200-M	2	Medium	Red	1-1/2 lb.	305-M	3	Medium	Red	6 lb.
200-T	2	Tough	Green	1-1/2 lb.	305-T	3	Tough	Green	6 lb.
200-N	2	Med. Hard	Cream	1-1/2 lb.	305-N	3	Med. Hard	Cream	6 lb.
200-H	2	Hard	Black	1-1/2 lb.	305-H	3	Hard	Black	6 lb.
200-XH	2	Extra Hard	Yellow	1-1/2 lb.	305-XH	3	Extra Hard	Yellow	6 lb.

\*Shot-loaded heads.

## WILLIAMS' HARMONIC BALANCER Puller and Driver



No. 189

Here is a tool needed by all Chevrolet mechanics. The long hardened 11 inch center-screw enables the operator to pull the balancer without removing the motor from the chasis.

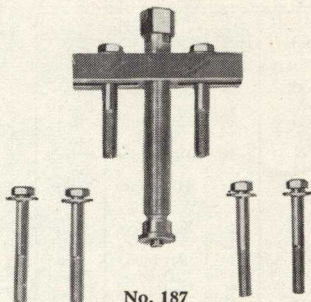
The two heat-treated hex screws are threaded back far enough to insure a firm grip when pulling operation begins.

The four inch long body enables the tool to handle the majority of all Chevrolet cars and trucks. The smaller center-screw is provided for those models not requiring the long 11 inch length.

Each kit is equipped with a driver to replace the Harmonic Balance.

Made from alloy steel. Cadmium-plated finish.

## WILLIAMS' STEERING WHEEL PULLER



No. 187

Will remove steering wheels on most cars where the wheel is held by two cap screws and lock nut, such as Ford, Mercury, Lincoln, Chevrolet, Oldsmobile, Dodge, Pontiac, Plymouth, Etc.

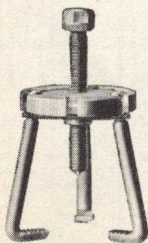
Three sets of hardened side screws: 5/16"-18, 2-3/4" long; 5/16"-24, 2-1/2" long; 3/8"-16, 2-3/4" long.

Made from alloy steel. Cadmium-plated finish.

### Operating Instructions

Remove the two cap screws on the steering wheel. Turn the lock nut several times, so that it is almost out of the tube. Place the swivel on the top of the nut and respective side screws in the two side holes. The usual pulling operation is then performed.

## WILLIAMS' WHEEL PULLER No. 5 For Refrigeration Service

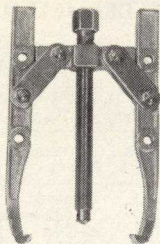


The forged body has four sockets into which two or all three arms may be placed in various positions. Flywheels with even or odd numbers of spokes are pulled with equal ease. Pulling capacity is 7" diameter. Arms are held in place by an endless spring.

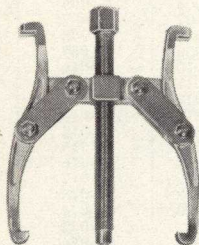
No.	Capacity Diam.	Body Diam.	Length Arms	Extra Parts		
				Arms	Screw	Spring
5	7	3 1/4	4 1/4			



## WILLIAMS' 2-JAW PULLERS



Nos. 240 and 243



Nos. 241 and 242

Williams' Pullers are designed for ease of operation and long life. The buttress type thread used on the forcing screw affords 1/3 more strength.

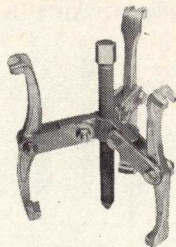
The wide range of sizes and jaw styles provide maximum versatility. Williams' Pullers are well suited to the many pulling jobs found in repair and maintenance work.

Forged from finest alloy steel, both body and jaws are heat-treated for utmost strength and durability.

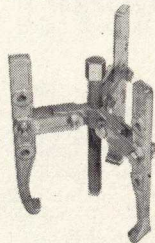
Cadmium-plated finish.

**NOTE:** No. 241 has plain hook on both ends of jaws. No. 242 has slotted hooks on one end of jaws for hooking on to cap screws to remove gears and parts which have tapped holes.

## WILLIAMS' 3-JAW PULLERS



Nos. 244 and 245



No. 246

Williams' 3-Jaw Pullers provide maximum strength and performance for the toughest pulling jobs, because their three strong jaws distribute a powerful 3-point, balanced force on the part being pulled.

Their popular size range adapts them to many uses in the proper maintenance of automobiles, trucks, tractors, farm equipment, airplanes and industrial machinery and equipment.

Forged from finest alloy steel, both body and jaws are heat-treated for utmost strength and durability.

Cadmium-plated finish.

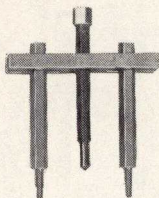
**NOTE:** No. 244 has plain hook on both ends of jaws. No. 245 has slotted hooks on one end of jaws for hooking on to cap screws to remove gears and parts which have tapped holes.

No.	Maximum Spread Inches	Maximum Reach Inches	Length and Diameter of Forcing Screw
240	0 to 4	3-3/8	3/8 x 4-1/4
241	0 to 6	3-1/4	5/8 x 6
242	0 to 8	5-1/2	3/4 x 8-5/16
243	0 to 10	9	3/4 x 8-5/16

No.	Maximum Spread Inches	Maximum Reach Inches	Length and Diameter of Forcing Screw
244	0 to 6	3-1/4	5/8 x 6
245	0 to 8	5-1/2	3/4 x 8-5/16
246	0 to 10	9	3/4 x 8-5/16

# WILLIAMS

## WILLIAMS' TIMING GEAR PULLER



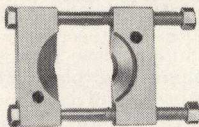
Here is a very handy tool for pulling timing gears and all other gears that have tapped holes. The sliding jaws enable the tool to handle gears of all widths.

For extra service the 6-1/2 inch side screws are machined to take care of the most used thread sizes, 3/8"-16 and 5/16"-18. By using standard sizes of cap screws, the mechanic has a combination tool for pulling fan pulleys, cam gears, timing gears and other gears with tapped holes.

Cadmium-plated finish.

No.	Length of Body	Length of Center Screw	Length of Side Screws
10	6-1/2	6-1/2	6-1/2

## WILLIAMS' BEARING SPLITTERS

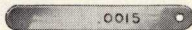


The inside of the counter-bore is machined down to nearly a sharp edge, which allows the tool to be forced back of the bearing or gear by tightening the two nuts. The bearing is separated and removed with the aid of a gear puller or arbor press. Made from alloy steel. Cadmium-plated finish.

\* Pullers Nos. 242 or 243 can be used with this tool by gripping around outside.

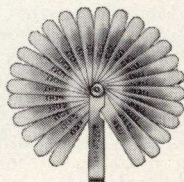
No.	Capacity	Hole, Thread Size
501	0 to 2-1/4	3/8—16
*503	0 to 4-1/4	5/8—18

## WILLIAMS' FEELER GAUGES



Made from selected Swedish Steel. Blades are 1/2" wide.

Blade Thickness	3-1/2" Lengths Number	12" Lengths Number
.0015	G-0015	GL-0015
.002	G-002	GL-002
.003	G-003	GL-003
.004	G-004	GL-004
.005	G-005	GL-005
.006	G-006	GL-006
.007	G-007	GL-007
.008	G-008	GL-008
.009	G-009	GL-009
.010	G-010	GL-010
.011	G-011	GL-011
.012	G-012	GL-012
.013	G-013	GL-013
.014	G-014	GL-014
.015	G-015	GL-015
.016	G-016	GL-016
.017	G-017	GL-017
.018	G-018	GL-018
.020	G-020	GL-020
.022	G-022	.....
.024	G-024	GL-024
.025	G-025	GL-025
.028	G-028	.....
.030	G-030	.....
.032	G-032	GL-032
.035	G-035	GL-035
.040	G-040	GL-040



GS-1



GS-2

### SET No. GS-1 MASTER FEELER GAUGE

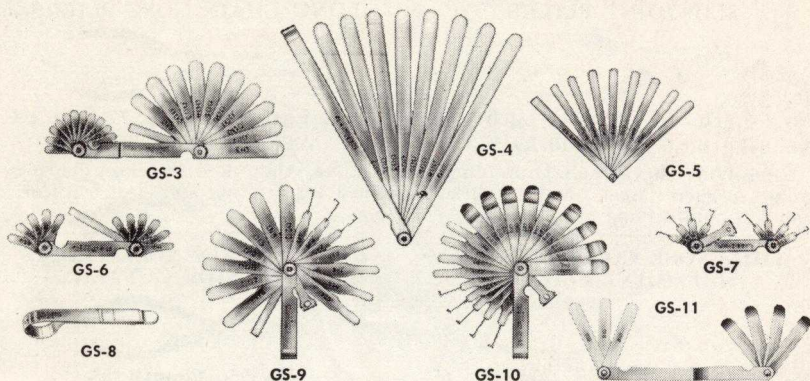
25 Blades 3-1/2" long in the following thicknesses—.0015, .002, .003, .004, .005, .006, .007, .008, .009, .010, .011, .012, .013, .014, .015, .016, .018, .020, .022, .024, .025, .028, .030, .032, .035.

### SET No. GS-2 STANDARD FEELER GAUGE

10 Blades 3-1/2" long in the following thicknesses—.002, .003, .004, .005, .006, .007, .008, .010, .012 and .015.



## WILLIAMS' FEELER GAUGE SETS



### SET No. GS-3 COMBINATION FEELER GAUGE

10 Blades 3-1/2" long in the following thicknesses—.002, .003, .004, .005, .006, .007, .008, .010, .013, .015; 11 Fingers in the following thicknesses—.012, .013, .014, .015, .018, .020, .022, .024, .025, .028, .032 and file.

### SET No. GS-4 PISTON FEELER GAUGE

8 Blades 9" long in the following thicknesses—.002, .003, .004, .005, .006, .008, .010 and .015.

### SET No. GS-5 BRAKE FEELER GAUGE

9 Blades 4" long in the following thicknesses—.002, .004, .005, .006, .007, .008, .010, .012 and .015.

### SET No. GS-6 IGNITION FEELER GAUGE

11 Fingers 1-5/8" long in the following thicknesses—.012, .013, .014, .015, .018, .020, .022, .025, .028, .032, .035 and one file.

### SET No. GS-7 SPARK PLUG GAP GAUGE

8 90° Wires—.022, .025, .028, .030, .032, .035, .038, .040 and electrode bender.

### No. GS-8 FEELER GAUGE STOCK HOLDER

4-3/4" long. Holds one 12" Blade, any thickness.

### SET No. GS-9 CHEVROLET FEELER GAUGE

8 Blades 3-1/2" long in the following thicknesses—.006, .007, .008, .010, .012, .013, .015, .020; 4 Fingers 3-1/2" long in the following thicknesses—.018, .020, .022, .024; 3 90° Wires .032, .035, .040; one file and one electrode bender.

### SET No. GS-10 SPECIAL FORD FEELER GAUGE

9 Step Blades 3-1/2" long in the following thicknesses—.010-.012, .011-.013, .012-.014, .013-.015, .014-.016, .015-.017, .016-.018, .017-.019, .018-.020; 4 Fingers 3-1/2" long in the following thicknesses—.013, .015, .020, .025; 2 Straight Wires—.017 and .030; 3 90° Wires—.025, .028, .030 and one electrode bender.

### SET No. GS-11 FORD OFFSET FEELER GAUGE

7 Blades 3" long in the following thicknesses—flat, .016, .018, .019—offset with 45° step, .018, .019, .020 and .021.

## WILLIAMS' DROP-FORGED PLIERS

### SLIP-JOINT PLIERS



No. 5-Lgth., 5"    No. 8-Lgth., 8"  
No. 6-Lgth., 6"    No. 10-Lgth., 10"

2-position slip-joints. Drop-forged from selected steel, with knurled handles, polished and nickel-plated.

### THIN NOSE COMBINATION SLIP-JOINT PLIERS



No. 15-Lgth., 5"    No. 16-Lgth., 6"

2-position slip-joints. Drop-forged from selected steel, with knurled handles; polished and nickel-plated.

### DIAGONAL CUTTING PLIERS



No. 46-Lgth., 6"    No. 47-Lgth., 7"

Cutting edges are made for last-ing service. Drop-forged from selected steel, faces polished.

### HIGH LEVERAGE DIAGONAL CUTTING PLIERS



No. 57—Length, 7"

Added leverage for easier and more powerful heavy duty cutting. Drop-forged, faces polished.

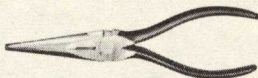
### BATTERY PLIERS



No. 67—Length, 7"

Offset jaws allow ample hand clear-ance for battery terminal work. Milled teeth assure positive grip.

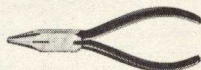
### LONG CHAIN NOSE PLIERS



No. 76-Lgth., 6"    No. 77-Lgth., 7"  
WITH SIDE CUTTER

Long, thin nose for close quarters. Ideal for ignition and electrical work, etc.

### SHORT CHAIN NOSE PLIERS WITH SIDE CUTTER



No. 95—Length, 5"

For fine mechanical work such as done in the jewelry, optical and elec-tronics fields.

### LONG NEEDLE NOSE PLIERS



No. 116—Length, 6"

The long slender jaws have strong gripping ability. Jaws will not become distorted in normal use.

### BENT NEEDLE NOSE PLIERS



No. 126—Length, 6"

The long slender jaws are bent to reach around or under obstructions. Jaws have strong gripping ability.

### ROUND NOSE PLIERS



No. 136—Length, 6"

Extensively used for flat or round wire forming. Nose and jaws are amply strong for this type of work.



# WILLIAMS

## WILLIAMS' DROP-FORGED PLIERS

### DUCK BILL PLIERS



No. 146—Length, 6"

Used in highly inaccessible places where there is not space for ordinary pliers. Strong jaws have firm grip.

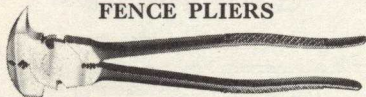
### END CUTTING NIPPERS



No. 166—Lgth., 6" No. 167—Lgth., 7"

These powerful, easy cutting nippers have carefully sharpened edges. Wide throat provides ample clearance.

### FENCE PLIERS



No. 190—Length, 10"

Head has hammer on one jaw, starting and pulling point on the other. Pliers also have two wire cutters; staple puller and wire splicer in nose, wire stretcher and lug lifter.

### LINEMEN'S SIDE CUTTING PLIERS



No. 206-6" No. 207-7" No. 208-8"

Surface of jaws are deep milled for holding and bending wire. Jaws have powerful cutters.

### SLIP-JOINT PLIERS



No. 370 With Side Cutter—Lgth., 7"

These pliers have keen side cutters and a flush head rivet on one side. Drop-forged from selected steel.

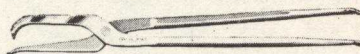
### LOCK RING PLIERS



No. 1515—Length, 8"

For spreading "Horse Shoe" snap lock rings on brakes, transmissions, pulleys, etc.

### BRAKE PLIERS

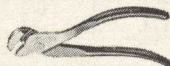


For Brake-Shoe Springs

No. 1517—Length, 13"

For inserting and removing springs (internal). Gray satin finish; faces of head polished.

### RIB-JOINT IGNITION PLIERS



No. 1519A—Length, 5"

Rib-joint holds jaws parallel at the most important openings; faces polished.

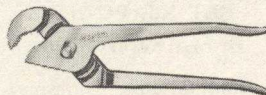
### RIB-JOINT UTILITY PLIERS



No. 1520A—Length, 10"

Very efficient for general service. Drop-forged from selected steel, faces polished.

### RIB-JOINT HEAVY DUTY PLIERS



No. 1521A—Length, 10"

Heavy duty construction makes this plier particularly useful in plumbing and electrical trades.

# WILLIAMS

## WILLIAMS' PUNCHES

Williams' Punches are forged from high grade octagon alloy steel, properly hardened and tempered to stand up under the most severe service. Black body; taper and head full polished.

### PIN PUNCHES



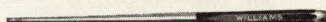
No.	Point Diam.	Stock Size	Length
P-3	3/32	3/8	6
P-4	1/8	3/8	6
P-5	5/32	3/8	6
P-6	3/16	1/2	6
P-8	1/4	5/8	8
P-16	5/16	5/8	8

### SOLID PUNCHES



No.	Point Diam.	Stock Size	Length
P-13	3/32	1/2	6
P-14	1/8	1/2	6
P-15	5/32	1/2	6
P-16	3/16	1/2	6
P-17	1/4	1/2	6

### LONG TAPER PUNCHES



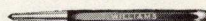
No.	Point Diam.	Stock Size	Length
P-25	5/32	3/8	9
P-26	3/16	1/2	10
P-28	1/4	5/8	12

### PRICK PUNCHES

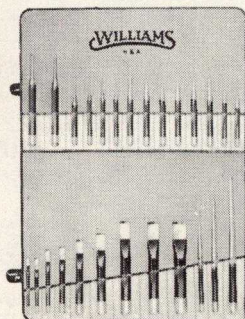


No.	Point Diam.	Stock Size	Length
P-30	.....	3/8	5

### CENTER PUNCHES

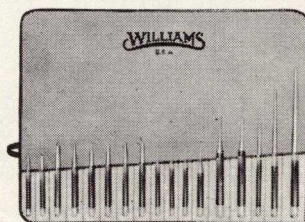


No.	Point Diam.	Stock Size	Length
P-40	.....	3/8	5
P-42	.....	1/2	6



### PUNCH and CHISEL SET No. PC-26R In Leatherette Roll

This combination set contains a complete assortment of Williams Punches and Chisels. It combines the contents of Punch Set No. PS-17 and Chisel Set No. CS-9 into one handy roll.



### PUNCH SET No. PS-17R In Leatherette Roll

This complete punch set contains one each Pin Punches P-3, P-4, P-5, P-6, P-8 and P-10; Solid Punches P-13, P-14, P-15, P-16 and P-17; Long Taper Punches P-25, P-26 and P-28; Prick Punch P-30; Center Punches P-40 and P-42.



# WILLIAMS

## WILLIAMS' CHISELS

Williams Chisels and Pinch Bars of high grade octagon alloy steel are carefully forged, hardened and tempered. Body finished in black with full polished ends. Rivet Buster is designed especially for cutting off hardened rivet heads.

### COLD OR FLAT CHISELS



No.	Width of Cut	Stock Size	Length
C-8	1/4	1/4	4 3/4
C-10	5/16	5/16	5
C-12	3/8	3/8	5 1/2
C-16	1/2	1/2	6
C-20	5/8	5/8	6 1/2
C-24	3/4	3/4	7
C-28	7/8	7/8	8
C-32	1	7/8	8
C-36	1 1/8	1	8

### EXTRA LONG COLD CHISELS



No.	Width of Cut	Stock Size	Length
C-120	5/8	1/2	12
C-124	3/4	5/8	12
C-132	1	3/4	12

### RIVET BUSTER



No.	Width of Cut	Stock Size	Length
C-422	11/16	3/4	12



**CHISEL SET No. CS-8R**  
In Leatherette Roll

This handy chisel set contains one each Cape Chisels C-40, C-42, C-44 and C-46; Diamond Point Chisels C-60 and C-62; Round Nose Chisels C-72 and C-74.

### CAPE CHISELS



No.	Width of Cut	Stock Size	Length
C-40	3/16	3/8	6
C-42	1/4	1/2	6 1/4
C-44	5/16	1/2	6 1/4
C-46	3/8	5/8	7

### DIAMOND POINT CHISELS



No.	Width of Cut	Stock Size	Length
C-60	1/4	3/8	5 1/4
C-62	3/8	5/8	6

### ROUND NOSE CHISELS

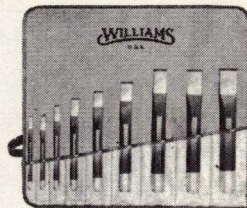


No.	Width of Cut	Stock Size	Length
C-72	1/4	1/2	6 1/4
C-74	3/8	5/8	7

### PINCH BARS



No.	Width of Cut	Stock Size	Length
C-80	.....	1/2	14
C-82	.....	5/8	16



**CHISEL SET No. CS-9R**  
In Leatherette Roll

This compact set contains a complete range of Cold Chisels consisting of one each C-8, C-10, C-12, C-16, C-20, C-24, C-28, C-32 and C-36.

# WILLIAMS

## WILLIAMS' SCREW DRIVERS

Williams' Regular Screw Drivers all have fluted handles of a tough transparent composition, an insulator of electricity. Tempered Blades are solidly anchored.

### REGULAR — ROUND BLADE



No.	Blade Length	Stock Size	Tip Width
24	4	1/4	1/4
26	6	5/16	5/16
28	8	3/8	3/8
32	12	3/8	3/8

### REGULAR — SQUARE BLADE



No.	Blade Length	Stock Size	Tip Width
4	4	1/4	5/16
6	6	5/16	5/16
6B	6	3/8	3/8
8	8	3/8	3/8
12	12	3/8	3/8

### REGULAR STUBBY (Adjusting)



No.	Blade Length	Stock Size	Tip Width
62	1-1/2	1/4	5/16

### ELECTRICIANS' — ROUND BLADE



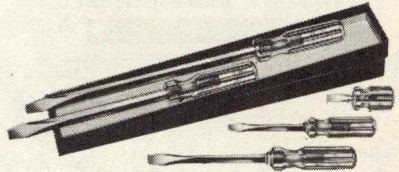
No.	Blade Length	Stock Size	Tip Width
43	3	3/16	3/16
46	6	3/16	3/16
50	10	3/16	3/16

### POCKET (With Clip)



No.	Blade Length	Stock Size	Tip Width
52	2-1/4	1/8	1/8

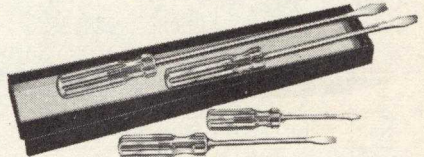
### SET No. 1-D in Cardboard Box



#### CONTENTS

1 each Nos. 4, 6, 8, 12 and 62 Regular Screw Drivers with square blades, composition handles.

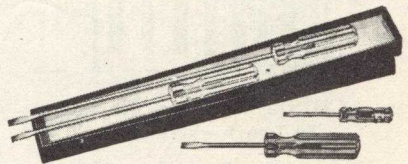
### SET No. 2-D in Cardboard Box



#### CONTENTS

1 each Nos. 24, 26, 28 and 32 Regular Screw Drivers with round blades, composition handles.

### SET No. 3-D in Cardboard Box



#### CONTENTS

1 each Nos. 43, 46, 50 and 52 Williams' Electricians' Screw Drivers with composition handles.

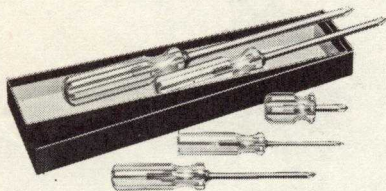


# WILLIAMS

## WILLIAMS' SCREW DRIVERS

### SET No. TP-5

in  
Cardboard Box

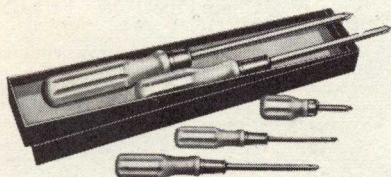


#### CONTENTS

1 each Nos. TP-1, TP-2, TP-3, TP-4 and TP-62 Phillips Screw Drivers with plastic handles.

### SET No. WP-5

in  
Cardboard Box,

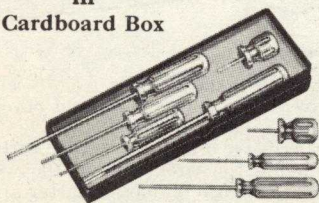


#### CONTENTS

1 each Nos. WP-1, WP-2, WP-3, WP-4 and WP-62 Phillips Screw Drivers with hardwood handles.

### SET No. CH-8

in  
Cardboard Box



#### CONTENTS

1 each Nos. CH-33, CH-43, CH-51, CH-54, CH-61, CH-64, CH-86 and CH-106 Clutch Head Screw Drivers with composition handles.

Williams Phillips Screw Drivers fit the entire range of Phillips recessed-head screws. Clutch Head have special tip design for servicing Clutch Head Screws.

### PHILLIPS COMPOSITION or WOOD HANDLE



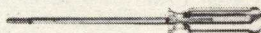
No. and Type Handle		Fits Screws No.	Blade Length
Plastic	Wood		
TP-1	WP-1	4 and smaller	3
TP-2	WP-2	5 to 9 incl.	4
TP-3	WP-3	10 to 16 incl.	6
TP-4	WP-4	18 and larger	8

### PHILLIPS STUBBY (Adjusting)



No. and Type Handle		Fits Screws No.	Blade Length
Plastic	Wood		
TP-62	WP-62	5 to 9 incl.	1-1/2

### CLUTCH-HEAD — REGULAR COMPOSITION HANDLE



No.	Fits Clutch Head Screw No.	Blade Length	Extreme Length
CH-33	2 & 3	3	6
CH-43	4	3	6
CH-54	6 & 8	4-1/4	7-3/4
CH-64	10	4-1/4	7-3/4
CH-86	12, 14 & 1/4	6	9-5/8
CH-106	5/16 & 3/8	6	10

### CLUTCH HEAD — STUBBY COMPOSITION HANDLE

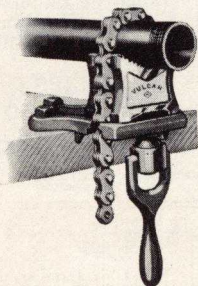


No.	Fits Clutch Head Screw No.	Blade Length	Extreme Length
CH-51	6 & 8	1-1/2	3-1/4
CH-61	10	1-1/2	3-1/4

# WILLIAMS

## WILLIAMS' DROP-FORGED CHAIN PIPE VISES

"VULCAN"®



**For Pipe, Bolts, Bars, Shafts, etc.  
1/8 to 8 inch diameter**

These Vises are unbreakable, light, compact, rapid in action and positive in grip. Suitable for fastening to bench or post.

They are made entirely of wrought steel, with drop-forged jaws saw-tempered for file-sharpening. The chains are of the same quality as those of our "Vulcan"® Chain Pipe Tongs.

**Orders for Chains take Screw also, unless otherwise specified.**

**Standard Finish—Baked gray enamel with orange panel.**

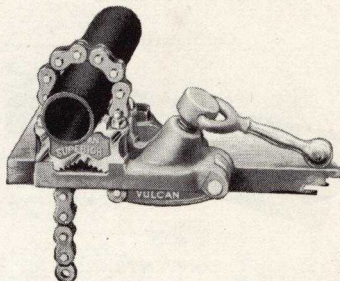
\* Will grip pipe fittings not larger in diameter than Std. 2-1/2" pipe (2-7/8" O.D.).

No.	For Pipe Sizes
1	1/8 to *2-1/2
2	1/4 to 4
3	1/4 to 6
4	1/4 to 8

### EXTRA PARTS

Jaws in Pairs	Chain with Screw	Chain Screw Only	Handle with Nut	Handle Only	Nut Only

"VULCAN"® SUPERIOR



Handle is ON TOP for easy operation. Reversible Jaws provide longer life.

Wholly made from tough wrought steel. DROP-FORGED base, jaws, handle and chain-arm. The chains are of the same quality as those of our "Vulcan"® Chain Pipe Tongs. FULLY GUARANTEED.

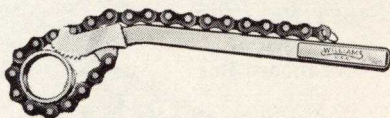
**Standard Finish—Baked gray enamel with orange panel.**

No.	For Pipe, Sizes
11	1/8 to 2-1/2
12	1/4 to 4-1/2

### EXTRA PARTS

Jaws in Pairs	Chain without Arm	Chain Arm Only	Handle with Screw	Adjust. Screw Only

## WILLIAMS' CHAIN WRENCH



Handle is drop-forged from Selected Alloy Steel, heat-treated and chrome-plated.

Successive bites can be taken without removing the wrench from the work.

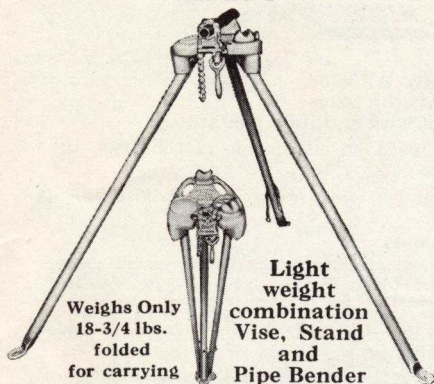
Ideal for use on close quarter applications in industry, farm and home.

No.	Capacity	Length	Weight, Ea., Lbs.
CW-4	3/8 to 4" O.D.	11	1.4



# WILLIAMS

## WILLIAMS' "VULCAN"® ALUMINUM VISE STAND No. AV-1



Aluminum Vise Stand has all the advantages of rigidity and strength found in heavier iron or steel types combined with light weight. There is no sacrifice of efficiency or performance yet weight is reduced nearly 50%.

Base is made from special aluminum alloy which has high tensile and high impact properties. Its heavily reinforced design prevents distortion under severe service. Recess for oil can and handy slots for tools are provided in addition to the "V" pipe support in rear.

**Pipe Benders** are provided in two sizes. One handles pipe up to 1/2 inch, the other handles pipe up to 3/4 inch.

**Legs** are 1-1/2" special aluminum alloy tubing. Upset feet are punched for fastening to floor, if desired. Legs may be folded and tied together with permanently attached chain.

**Vise** is "Vulcan"® No. 1 as described on page 72.

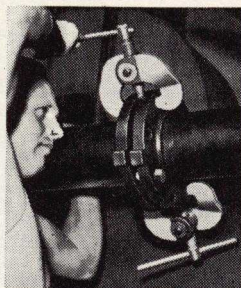
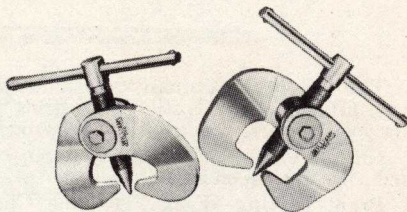
**Finish**—entire assembly has satin aluminum finish.

All parts of Vise and Stand are interchangeable.

\* Grips pipe fittings not larger in diam. than Std. 2 1/2" pipe (2 3/8" O.D.).

Vise Stand No.	For Pipe Sizes
AV-1	1/8 to 2-1/2

## WILLIAMS' FLANGE-JACKS



### For Fast, Safe, Easy Gasket Replacement

Operating with a minimum of effort, FLANGE-JACKS exert tremendous pressure smoothly and evenly. The flanges are parted quickly and held in perfect alignment without damage to flange faces.

There is no shock along the pipe line, no danger from flying wedges and no sparks are caused by hammer blows. FLANGE-JACKS eliminate costly shutdowns, making possible fast, economical repairs in hard-to-get-at locations.

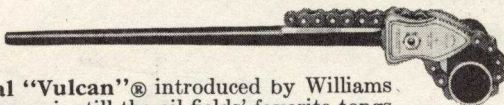
Technical data sheet covering Flange-Jacks capacities for all standard flange faces in various pipe classes and the dimensional limitations of special flanges available on request. Table below indicates capacities for standard raised face flanges in widely used cast iron and steel pipe classes.

### Sold in Pairs Only

No.	Capacity—Standard Raised Face Flanges			
	125 lb. Cast Iron	150 lb. Steel	250 lb. Cast Iron	300 lb. Steel
20	2" to 20"	2" to 20"	1" to 12"	3/4" to 12"
30	16" to 48"	18" to 24"	12" to 30"	12" to 24"

# WILLIAMS

## WILLIAMS' "VULCAN"® DROP-FORGED CHAIN PIPE TONGS



The Original "Vulcan"® introduced by Williams over fifty years ago, is still the oil fields' favorite tongs for general work. Made entirely of wrought steel and fully guaranteed.

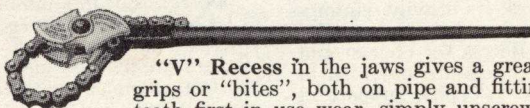
Chains swing from center and can be used on either side of the jaws, thus reducing wear upon specific teeth.

**Proof-Testing**—Each Flat Link Chain is "proof-tested" to two-thirds of its breaking strain.

**Standard Finish** — Jaws are orange baked enamel.

Number	10	11	12	13	13-1/2	14	15	16
Cap., Size Pipe, In....	1/8-3/4	1/8-1 1/2	1/4-2 1/2	3/4-4	1-6	1 1/2-8	2-12	4-18
Extreme Length .....	13 3/4	20	27	37	44 1/2	50 1/2	64 1/2	87
<b>Flat Standard Chain</b>								
Length .....	9 1/2	18 1/2	17 1/2	22 1/2	32	40 1/2	55 1/2	74 1/2
Breaking Strain, lbs.	3,600	6,700	9,800	12,500	14,300	15,700	21,800	40,000
<b>Cable Chain</b>								
Length .....		14 1/2	18	27	33 1/2	42	57	76
Breaking Strain, lbs.		6,000	9,000	12,500	14,300	15,700	21,800	40,000
<b>Extra Parts</b> .....	Flat or Cable Chain			Jaws in Pairs			Bolt and Nut	

## WILLIAMS' "VULCAN" SUPERIOR® DROP-FORGED PIPE and FITTING TONGS



"V" Recess in the jaws gives a greater number of grips or "bites", both on pipe and fittings. When the teeth first in use wear, simply unscrew the bolt and turn the jaws end-for-end.

**Chains**—Either Flat Link Chain, or Cable Chain except No. 0.

**Proof-Testing**—Each Flat Link Chain is individually "proof-tested" to two-thirds of its breaking strain.

Made from tough wrought steel; all parts are interchangeable.

**Standard Finish** — Jaws are orange baked enamel.

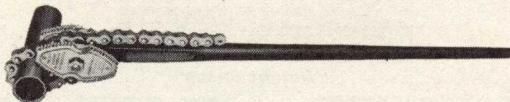
† Extra Jaws supplied in pairs. If only a single jaw is wanted, specify Right or Left.

Number	0	1	2	3	3-1/2	4	5
<b>For Pipe and Fittings, In. . .</b>	1/8-3/4	1/8-1 1/2	1/4-2 1/2	3/4-4	1-6	1 1/2-8	2-12
Extreme Length .....	13 3/4	20	27	37	44 1/2	50 1/2	64 1/2
<b>Standard Flat Link Chain,</b>							
Length .....	9 1/2	13 1/2	17 1/2	22 1/2	32	40 1/2	55 1/2
Breaking Strain, lbs. ....	3,600	6,700	9,800	12,500	14,300	15,700	21,800
<b>Cable Chain,</b>							
Length .....		14 1/2	18	27	33 1/2	42	57
Breaking Strain, lbs. ....		6,000	9,000	12,500	14,300	15,700	21,800
<b>Extra Parts</b> .....	Flat or Cable Chain			† Jaws in Pairs		Bolt and Nut	



# WILLIAMS

## WILLIAMS' "VULCAN"® REVERSIBLE DROP-FORGED PIPE and FITTINGS TONGS



"Vulcan"® Reversible Tongs will turn pipe instantly in either direction without removing the tongs or loosening the chain. Since removal of the tongs is unnecessary, no time is lost in reversing the action.

**Outer jaws** can be removed to make an efficient fittings tongs for narrow beads and flanges. Jaw removal is accomplished by taking out the single bolt and nut used in assembly. These outer jaws are also reversible end-for-end providing double life.

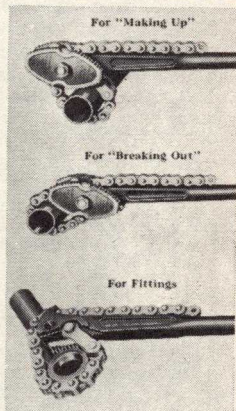
**Proof-Testing.** To insure proper service, each Flat Link Chain is "proof-tested" to two-thirds of its breaking strain.

Made from tough wrought steel; all parts are interchangeable.

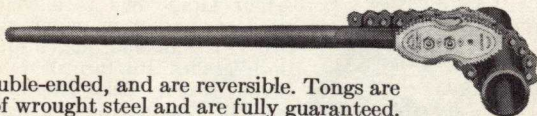
**Standard Finish** — Jaws are orange baked enamel.

Order replacements by part number and tong size; see Catalog No. 303 for illustrated parts list.

Number	27	37	47	57
<b>For Pipe</b> , size, inches	1½-2½	¾-4	1-6	1½-8
Length	27	37	44½	50½
<b>Flat Chain</b> , length	17½	22½	32	40½
Breaking Strain, lbs.	9,800	12,500	14,300	15,700



## WILLIAMS' IMPROVED "VULCAN"® DROP-FORGED CHAIN PIPE TONGS



Jaws are double-ended, and are reversible. Tongs are wholly made of wrought steel and are fully guaranteed.

Chains swing from the center and can be used on either side of the jaws, thus reducing the wear upon specific teeth.

**Proof-Testing**—Each Flat Link Chain is "proof-tested" to two-thirds of its breaking strain.

**Standard Finish** — Jaws are orange baked enamel.

Number	30	31	32	33	33-1/2	34	35
<b>Capacity</b> , Size Pipe, inches...	1/8-3/4	1/8-1 1/2	1/4-2 1/2	3/4-4	1-6	1 1/2-8	2-12
Extreme Length	13 3/4	20	27	37	4 1/2	50 1/2	64 1/2
<b>Flat "Standard" Chain</b>							
Length	9 1/2	13 1/2	17 1/2	22 1/2	32	40 1/2	55 1/2
Breaking Strain, lbs.	3,600	6,700	9,800	12,500	14,300	15,700	21,800
<b>Extra Parts</b>	Flat Chain		Jaws in Pairs		Nuts and Studs		

# WILLIAMS

## WILLIAMS' CARBIDE TURNING-TOOL HOLDERS



Straight Shank



Right Hand Offset Shank



Left Hand Offset Shank

Furnished With Wrench but Without Cutter

The Cutter is held parallel to the shank and can be so ground as to provide maximum support for the cutting edge. This feature, plus the extremely rigid Holder, is the recognized basis for the best performance of cemented carbide cutters. For square Carbide Cutters, See Page 84.

Straight Shank	Offset Shank		Holder, Size	For Cutter, Size Square	For Lathes of Approx. Swing, Inches
	Right Hand	Left Hand			
T-0-S	T-0-R	T-0-L	3/8 x 15/16 x 6	1/4	9 to 10
T-1-S	T-1-R	T-1-L	1/2 x 1-1/4 x 7	5/16	11 to 14
T-2-S	T-2-R	T-2-L	5/8 x 1-1/2 x 8	3/8	14 to 16
T-3-S	T-3-R	T-3-L	3/4 x 1-3/4 x 9	7/16	16
T-4-S	T-4-R	T-4-L	7/8 x 1-7/8 x 10	1/2	18
T-5-S	T-5-R	T-5-L	1 x 2-1/8 x 12	5/8	20 to 24

### WILLIAMS' CARBIDE TURNING-TOOL HOLDER SETS

The five Williams' Carbide Turning-Tool Holder Sets each contain one Straight Shank, one Right-Hand Offset and one Left-Hand Offset Carbide Turning-Tool Holder; eight Carbide-Tipped Turning Cutter Bits—four Grade 883 with shanks lacquered gray for non-ferrous metals and four Grade 78B with shanks lacquered orange for steel. Both grades are furnished with one each Right Hand, Left Hand, Square Nose and 80° Round Nose Cutters. Each set is furnished in a strong steel case complete with wrench. The cutters are packed in a removable tray for easy selection.

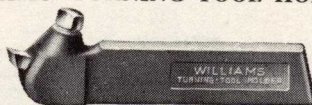


Set No.	For Lathes of Approx. Swing Inches	Straight Shank No.	Offset Shank		Size of Holder Shank	Cutter Size Sq. Ins.	Carbide Grade 883 Gray Shanks				Carbide Grade 78B Orange Shanks			
			R.H. No.	L.H. No.			R.H. No.	L.H. No.	Sq. Nose No.	80° Rd. Nose No.	R.H. No.	L.H. No.	Sq. Nose No.	80° Rd. Nose No.
M-0A	9-10	T-0-S	T-0-R	T-0-L	3/8x15/16	1/4	AR-4	AL-4	C-4	D-4	AR-4	AL-4	C-4	D-4
M-1A	11-14	T-1-S	T-1-R	T-1-L	1/2x1-1/4	5/16	AR-5	AL-5	C-5	D-5	AR-5	AL-5	C-5	D-5
M-2A	14-16	T-2-S	T-2-R	T-2-L	5/8x1-1/2	3/8	AR-6	AL-6	C-6	D-6	AR-6	AL-6	C-6	D-6
M-3A	16	T-3-S	T-3-R	T-3-L	3/4x1-3/4	7/16	AR-7	AL-7	C-7	D-7	AR-7	AL-7	C-7	D-7
M-4A	18	T-4-S	T-4-R	T-4-L	7/8x1-7/8	1/2	AR-8	AL-8	C-8	D-8	AR-8	AL-8	C-8	D-8

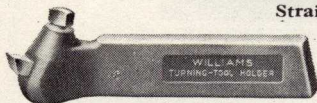


# WILLIAMS

## WILLIAMS' TURNING-TOOL HOLDERS



Straight Shank



Right Hand Offset Shank



Left Hand Offset Shank

### Furnished With Cutter and Wrench

Specially heat-treated and hardened, these Holders have a chamfered nose permitting convenient use in cramped quarters. The long, accurate cutter channel provides a true, rigid cutter seat eliminating chatter, and the breaking of high speed steel bits. Maximum efficiency in cutter fastening is achieved by the use of Alloy Steel Set Screws accurately machined, heat-treated and hardened. H. S. Cutters furnished in a "diamond point" form that requires a minimum of grinding.

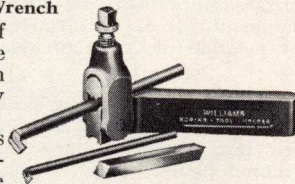
Straight Shank	Number		Holder, Size	Cutter Size, Square	For Lathes of Approx. Swing, Inches
	Right Hand	Left Hand			
000-S	000-R	000-L	5/16 x 1/2 x 4	3/16	6 to 7
00-S	00-R	00-L	5/16 x 3/4 x 4 1/2	3/16	7 to 10
0-S	0-R	0-L	3/8 x 7/8 x 5	1/4	10 to 12
1-S	1-R	1-L	1/2 x 1 1/8 x 6	5/16	14 to 16
2-S	2-R	2-L	5/8 x 1 3/8 x 7	3/8	16 to 18
3-S	3-R	3-L	3/4 x 1 5/8 x 8	7/16	18 to 20
4-S	4-R	4-L	7/8 x 1 3/4 x 9	1/2	24 to 36
5-S	5-R	5-L	1 x 2 x 11	5/8	.....
6-S	6-R	6-L	1 1/4 x 2 1/4 x 13	3/4	.....

## WILLIAMS' LIGHT BORING-TOOL HOLDERS

### Furnished with 2 Bars, 1 Square Cutter and Wrench

**BORING.** Each tool will hold a number of sizes of Bars; two, varying 1/8" in diameter, are supplied with each Holder. The Bars are High Speed Steel, carefully hardened and ground, ready for use.

**TURNING.** The Holder, with offset shank, is reversible for right and left hand work. The self-adjusting gib allows the yoke to clear the end of the Holder. A hardened High Speed Steel square Cutter with ends beveled to a "diamond point" for easy grinding to desired form, is supplied with each tool.



No.	Holder, Size Shank	With Each Holder		For Lathes of Approx. Swing, Inches
		2 Bars High Speed Steel Diam.	1 High Speed Square Cutter	
15	3/8 x 3/4	1/8 and 1/4	1/4	9 to 10
16	1/2 x 1	3/16 and 5/16	5/16	11 to 14
17	5/8 x 1-1/4	1/4 and 3/8	3/8	14 to 16
18	3/4 x 1-1/2	5/16 and 7/16	7/16	16

### EXTRA BORING BARS

No.	8140	8141	8142	8143	8144	8145
Size.....	1/8 x 4	3/16 x 4-1/2	1/4 x 5	5/16 x 6	3/8 x 7	7/16 x 8
For Holders...	15 & 16	15 to 17	15 to 17	15 to 18	16 to 18	17 & 18

# WILLIAMS

## WILLIAMS' BORING-TOOL HOLDERS



**Sleeve Bar**

Furnished with either Sleeve or Plain Bar,  
1 each 45° and 90° Cutter and Wrenches.

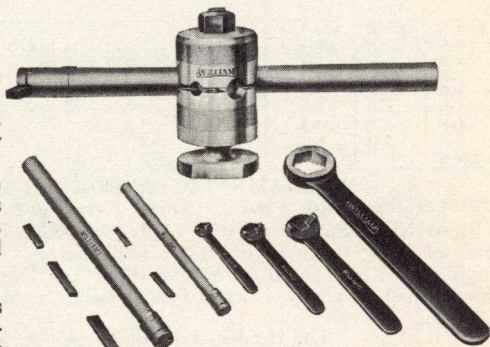
Each Boring Tool holds securely many sizes of Bars without requiring bushings or sleeves. Any size Bar within the capacity of the Holder can be inserted instantly; no lost time looking for loose parts.

Standard size Sleeve Bar will be supplied, unless otherwise specified.

No.	Holder, Size	Holder, Capacity for Bars, Size Diameter	Standard Bar, Size Diameter	For Lathes of Approx. Swing, Inches
00B	5/16 x 3/4	3/16 to 1/2	1/2	6 to 8
8	3/8 x 7/8	1/4 to 5/8	5/8	9 to 10
9	1/2 x 1-1/8	1/4 to 3/4	3/4	11 to 14
10	5/8 x 1-3/8	3/8 to 15/16	15/16	14 to 16
11	3/4 x 1-5/8	1/2 to 1-1/8	1-1/8	16
12	7/8 x 1-3/4	1-5/16	1-5/16	18

## WILLIAMS' 3-BAR BORING TOOLS

Each Holder accommodates three sizes of Bars. Speedy changes can be made by a slight turn of the nut which releases or secures both Bar and Holder instantly. Speeds and feeds can be increased since this Holder allows the operator to use the strongest bar possible for each individual job.



Williams' 3-Bar Boring Tools are packed complete in a separate box, each set including cadmium-plated Holder; three Sleeve Bars each with one 45° and one 90° high speed cutter and wrench; and one wrench for Holder nut.

\* 3/8 x 7" Solid Bar as listed under "Extra Boring Bars" on page 77.

The "T" Slot Bolt Head and Bottom Part of Holders are furnished large to allow for fitting to individual machines. For special finishing to specified dimensions, an extra net charge for each Holder will be made.

No.	For Lathes of Swing, Inches	Diameter Bars	Length of Bars	Size Cutters, Square
0-BB	8 to 10	3/8, 1/2, 3/4	7, 7-5/8, 11	*, 3/16, 1/4
1-B	12 to 16	1/2, 3/4, 1-1/8	7-5/8, 11, 16	3/16, 1/4, 3/8
2-B	16 to 18	5/8, 15/16, 1-5/16	9-1/8, 13-1/4, 19	3/16, 5/16, 3/8
3-B	20 to 22	3/4, 1-1/8, 1-1/2	11, 16, 23-1/4	1/4, 3/8, 7/16
4-B	24 to 32	15/16, 1-5/16, 1-13/16	13-1/4, 19, 27-1/4	5/16, 3/8, 1/2



# WILLIAMS

## WILLIAMS' BORING BARS AND CUTTERS



Sleeve Bar



Plain Bar

Furnished with Two Cutters and Wrench

Boring-Bars, Approximate Size				For Use With Holders No.	Cutters	
Sleeve		Plain			Size Square and Length	For Use at Angles of
No.	Size	No.	Size			
0B	1/2 x 7-5/8	0B-X	1/2 x 8-1/8	00B thru 11	3/16x1	90°
08	5/8 x 9-1/8	08-X	5/8 x 10-1/8	0-BB and 1-B	3/16x2	45°
09	3/4 x 11	09-X	3/4 x 12-1/8	8 thru 11	3/16x1	90°
010	15/16 x 13-1/4	010-X	15/16 x 14-1/8	2-B	3/16x2	45°
011	1- 1/8 x 16	011-X	1- 1/8 x 16-3/4	9 thru 11	1/4 x1-7/32	90°
012	1- 5/16 x 19	012-X	1- 5/16 x 20	0-BB, 1-B and 3-B	1/4 x2-1/2	45°
013	1- 1/2 x 23-1/4	013-X	1- 1/2 x 23-1/2	10 and 11	5/16x1-7/32	90°
014	1-13/16 x 27-1/4	014-X	1-13/16 x 28	2-B and 4-B	5/16x2-1/2	45°
015	2- 1/4 x 33	015-X	2- 1/4 x 34	11	3/8x1-13/16	90°
				1-B and 3-B	3/8 x3	45°
				12	3/8 x2-1/16	90°
				2-B and 4-B	3/8 x3	45°
				3-B	7/16x2-3/16	90°
				4-B	7/16x3-1/2	45°
					1/2 x2-1/2	90°
					1/2 x4	45°
					5/8 x3	90°
					5/8 x4-1/2	45°

### WILLIAMS'

#### THREADING-TOOL HOLDER Formed Cutter Pattern



Furnished with Finished  
Cutter and Wrench

In re-sharpening the Cutter, it is necessary to grind its top edge only. The point will always retain proper form and angle. H.S. Cutter is ground to an included angle of 60°, backed off for proper clearance. Rear, flat edge is eccentrically formed; hardened stop screw provides accurate adjustment.

No.	Holder, Size	Cutter	Lathes of Approx. Swing In.
00-T	5/16 x 3/4 x 5	Formed	7 to 10
50	3/8 x 7/8 x 5	Formed	10 to 12
51	1/2 x 1 1/8 x 5 3/4	Formed	14 to 16
52	5/8 x 1 3/8 x 7	Formed	16 to 18
53	3/4 x 1 5/8 x 8	Formed	18 to 20

### WILLIAMS'

#### THREADING-TOOL HOLDERS Lockable-Spring Pattern



Furnished with Finished  
Cutter and Wrench

For fine and coarse threading. Nut provides for rigid backing required for heavy cuts; when loosened, Holder becomes a spring-tool for finishing work. Equally efficient as a Turning-tool. Each end of H.S. Cutter is ground, the "V" point forming either an angle of 60° for U. S., or 55° for Whitworth Std. threads.

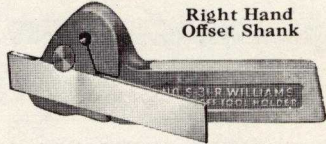
No.	Holder, Size	Cutter Size, Square	Lathes of Approx. Swing In.
S-50	1/8 x 7/8 x 5 1/4	1/4	10 to 12
S-51	5/2 x 1 1/8 x 6	5/16	14 to 16
S-52	3/8 x 1 3/8 x 7	3/8	16 to 18

# WILLIAMS

## WILLIAMS' SPRING CUTTING-OFF TOOL HOLDERS



Straight  
Shank



Right Hand  
Offset Shank

### Furnished with Finished Cutter and Wrench

These Spring Tools make comparatively simple all lathe cutting-off work. Due to the "goose neck" form of the Holder, the Cutter Blade is relieved of excess pressure; no chattering, no "climbing" of the work on the tool—the real cause of nearly all breakage of cutting-off tools. Particularly efficient with automatic feed.

Cutter Blades are High Speed Steel, hardened and ground on one end ready for use. They are interchangeable in Holders of corresponding size listed below.

**Straight Shank Holders will be furnished, unless otherwise specified.**

Number		Holder, Size	Cutter Blades, High Speed Steel, Finished Size	For Lathes of Approx. Swing, Inches
Straight Shank	Offset Shank, Right Hand			
.....	S-30-RA	3/8 x 13/16	3/32 x 5/8	9 to 10
S-20	S-30-R	3/8 x 31/32	3/32 x 5/8	9 to 10
S-21	S-31-R	1/2 x 1-3/16	1/8 x 3/4	11 to 14
S-22	S-32-R	5/8 x 1-3/8	1/8 x 7/8	14 to 16
S-23	S-33-R	3/4 x 1-5/8	3/16 x 1	16

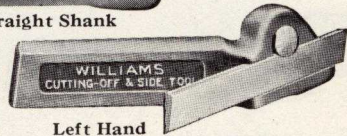
## WILLIAMS' CUTTING-OFF AND SIDE-TOOL HOLDERS



Right Hand Straight Shank



Right Hand



Left Hand

Offset Shanks

### Furnished with Finished Cutter and Wrench

One Holder takes both Cutting-off and Side Blades. The Camfastening is always rapid and positive—the greater the pressure the tighter the lock. Cutter Blades described above.

**Cutting-off Blade will be furnished, unless otherwise specified.**

Number			Holder, Size	Cutter Blades, High Speed Steel, Finished Size		For Lathes of Approx. Swing, Inches
Straight Shank Right Hand	Offset Shank			Cutting Off Blade	Side Blade	
	Right Hand	Left Hand				
19	29-R	29-L	5/16 x 13/16	3/32 x 1/2	1/8 x 1/2	6 to 8
20	30-R	30-L	3/8 x 31/32	3/32 x 5/8	5/32 x 5/8	9 to 10
21	31-R	31-L	1/2 x 1-3/16	1/8 x 3/4	3/16 x 3/4	11 to 14
22	32-R	32-L	5/8 x 1-3/8	1/8 x 7/8	1/4 x 7/8	14 to 16
23	33-R	33-L	3/4 x 1-5/8	3/16 x 1	5/16 x 1	16
24	34-R	34-L	7/8 x 1-3/4	3/16 x 1-1/8	3/8 x 1-1/8	18
25	35-R	35-L	7/8 x 1-3/4	1/4 x 1-1/8	.....	18



# WILLIAMS

## WILLIAMS' KNURLING-TOOL HOLDERS

Nos. 00-K to 2-K with  
Self-Centering Head and  
One Pair of Knurls



Nos. 3-K-0 to 3-K-2 with  
Revolving Head and  
Three Pairs of Knurls



00-K to 2-K, with self-centering head, are fitted with ONE pair of Knurls, fine, medium or coarse: Unless otherwise specified, Medium Diamond Knurls will be supplied.

3-K-0 to 3-K-2 carry THREE pairs of Knurls, fine, medium and coarse. Fitted in revolving head for use as desired, without loss of time in changing from one grade of knurling to another.

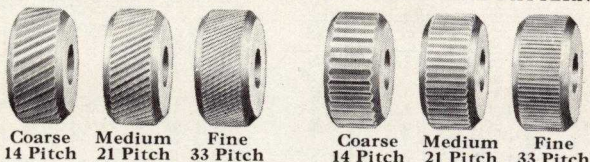
No.	Holder, Size	Standard Knurls, Size		Hole	For Lathes of Approx. Swing, Inches
		Diam.	Face		
SELF-CENTERING HEAD — ONE PAIR OF KNURLS					
00-K	5/16 x 3/4 x 5	5/8	3/16	7/32	7 to 10
0-K	3/8 x 7/8 x 5-1/2	5/8	3/16	7/32	10 to 12
1-K	1/2 x 1-1/8 x 6-5/8	3/4	1/4	1/4	14 to 16
2-K	5/8 x 1-3/8 x 7-1/2	3/4	1/4	1/4	16 to 18
REVOLVING HEAD — THREE PAIRS OF KNURLS					
3-K-0	3/8 x 7/8 x 5-1/2	5/8	3/16	7/32	10 to 12
3-K-1	1/2 x 1-1/8 x 6-5/8	3/4	1/4	1/4	14 to 16
3-K-2	5/8 x 1-3/8 x 6-5/8	3/4	1/4	1/4	16 to 18

## WILLIAMS' KNURLS FOR KNURLING-TOOL HOLDERS

### DIAMOND PATTERN

### STRAIGHT-LINE PATTERN

Sold  
In Pairs

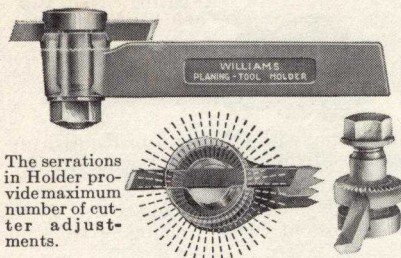


Note: "Pitch" means number of teeth per linear inch.

Knurl No.	For Knurling Tool No.	Pitch	Knurls, Size			
			Diameter	Thickness	Face	Hole
DIAMOND PATTERN						
8227	00-K, 0-K, 3-K-0	Fine	5/8	5/16	3/16	7/32
8224	00-K, 0-K, 3-K-0	Medium	5/8	5/16	3/16	7/32
8221	00-K, 0-K, 3-K-0	Coarse	5/8	5/16	3/16	7/32
8228	1-K, 2-K, 3-K-1, 3-K-2	Fine	3/4	3/8	1/4	1/4
8225	1-K, 2-K, 3-K-1, 3-K-2	Medium	3/4	3/8	1/4	1/4
8222	1-K, 2-K, 3-K-1, 3-K-2	Coarse	3/4	3/8	1/4	1/4
STRAIGHT-LINE PATTERN						
8267	00-K, 0-K, 3-K-0	Fine	5/8	5/16	3/16	7/32
8264	00-K, 0-K, 3-K-0	Medium	5/8	5/16	3/16	7/32
8261	00-K, 0-K, 3-K-0	Coarse	5/8	5/16	3/16	7/32
8268	1-K, 2-K, 3-K-1, 3-K-2	Fine	3/4	3/8	1/4	1/4
8265	1-K, 2-K, 3-K-1, 3-K-2	Medium	3/4	3/8	1/4	1/4
8262	1-K, 2-K, 3-K-1, 3-K-2	Coarse	3/4	3/8	1/4	1/4

## WILLIAMS' PLANING-TOOL HOLDERS

Furnished with Cutter and Wrench



The serrations in Holder provide maximum number of cutter adjustments.

Tools provide 24 different angles of cutter adjustment. Excellent as an offset turning tool or "goose neck".

Construction assures perfect seat and holding qualities for the Cutters; the convex face of Clamp Nut provides uniform locking pressure.

The serrated washer, or Adjustment Ring, which sustains the fastening and working strains, is hardened and tempered. If it wears in long service, a new Ring *only* is required—not a complete Holder.

## WILLIAMS' EXTENSION SHAPER TOOLS

Furnished with Bar, Cutter and Wrench

The design and extreme rigidity of this Shaper Tool adapt it for cutting internal keyways, die work or any type of shaper work where extra clearance is needed.



No.	Holder, Size	Size Bar	Cutter, Size Sq.
*46	3/8 x 7/8	1/2 x 7-1/2	3/16
47	1/2 x 1-1/8	3/4 x 10	5/16
48	5/8 x 1-3/8	15/16 x 12	3/8

\* Instead of Split Collar as illustrated, bar is held by two hollow set screws.

## EXTRA BARS AND BUSHINGS

Each Bar furnished with one Bushing, High Speed Cutter and Wrench.

When ordering, please furnish number of Tool or Holder size in which Bar is to be used, otherwise Bushing will not be included.

No.	Holder, Size	Cutter, Size
40	1/2 x 1 x 7	1/4 x 3/8
401	5/8 x 1-1/4 x 8-1/2	5/16 x 7/16
41	3/4 x 1-1/2 x 10-1/4	3/8 x 1/2
42	1 x 1-3/4 x 13-1/4	1/2 x 3/4
43	1-3/8 x 2 x 16-1/2	5/8 x 7/8
44	1-3/4 x 2-3/8 x 19	3/4 x 1
45	2-1/8 x 2-3/4 x 22	7/8 x 1-1/8

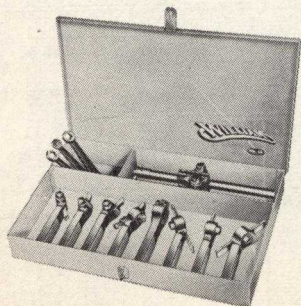
No.	Size Bar	Cutter, Size Square	With Bushing to Fit Holder Number	Without Bushing to Fit Holder Number
0530	1/2 x 7-1/2	3/16	47 and 48	46
0532	5/8 x 8-1/2	1/4	47 and 48	..
0597	3/4 x 10	5/16	48	47
0598	15/16 x 12	3/8	.....	48

## WILLIAMS' LATHE-TOOL SETS

Sets provide complete lathe service—Turning, Boring, Knurling, Threading, Cutting-Off and Side work. High speed cutters and wrenches furnished.

\* Set No. 4 furnished without Boring-Tool Holder.

† Sets Nos. 3 & 4 furnished without Threading or Knurling Holders or Metal Case.

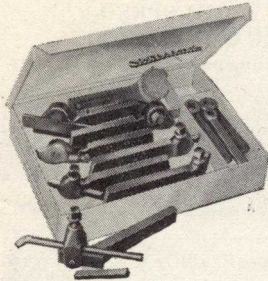


Set No.	For Lathes of Approx. Swing, Inches	Holder, Size Shank	Quantity of Tools in Set
00A	7 to 10	5/16 x 3/4	9
0A	10 to 12	3/8 x 7/8	9
1A	14 to 16	1/2 x 1-1/8	9
2A	16 to 18	5/8 x 1-3/8	9
† 3	18 to 20	3/4 x 1-5/8	7
*† 4	24 to 26	7/8 x 1-3/4	6



# WILLIAMS

## WILLIAMS' "HOME-CRAFT" TOOL HOLDERS



Holders also sold individually

### SET No. 8H—In Metal Case

#### 8 Home Craft Tool Holders and 3 Wrenches

Set covers all lathe operations—Turning, Cutting-Off, Boring, Threading, Knurling—on small lathes 7 to 10" swing.

Holders, drop-forged from selected steel, are heat-treated and hardened. Nose of Holders chamfered permitting use in cramped quarters. High Speed Steel Cutters and Cutting-Off Blades are hardened and ground ready for use.

The Threading-Tool Holder is supplied with a Formed Cutter, the point of which is ground to an included angle of 60°. In re-sharpening, grind the top edge only; Cutter will retain its proper form and angle.

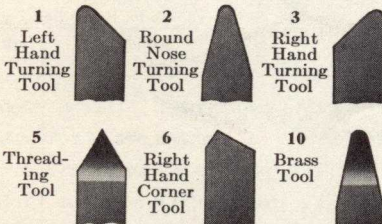
The Boring-Tool is furnished with Bar 1/4" round by 5" long, point offset and ground; and 1/4" square turning cutter.

The Knurling-Tool is fitted with "Diamond" pattern Knurls for medium work (21 pitch). Knurls for fine (33 pitch) or coarse (14 pitch) work are available. "Straight Line" Knurls can also be furnished

\* All finished, ready for use.

No.	Tool Holder	Size Shank	Cutter; High Speed Steel
2010-S	Turning—Straight Shank.....	3/8 x 13/16	1/4 Square
2010-R	" R. H. Offset Shank.....	3/8 x 13/16	1/4 Square
2010-L	" L. H. Offset Shank.....	3/8 x 13/16	1/4 Square
2040	Knurling—.....	3/8 x 3/4	*Medium
2020-S	Cut-Off—R. H. Straight Shank.....	3/8 x 13/16	*3/32 x 5/8
2020-R	" R. H. Offset Shank.....	3/8 x 13/16	*3/32 x 5/8
2050	Threading—with Formed Cutter.....	3/8 x 3/4	*Formed
2030	Boring—Reversible—R. or L. Hand.....	3/8 x 3/4	{ 1/4 Square *1/4 rd. x 5

### Set of 6 "HOME-CRAFT" HIGH SPEED CUTTERS



Cutters, 1/4" square, are made of High Speed Steel carefully ground to shape and hardened. This set cares for practically all lathe needs of school and home workers.

### WILLIAMS' "HOME-CRAFT" LATHE DOGS

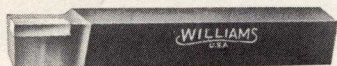


These lathe dogs are drop-forged—not cast—especially for home-craft work; screws are hardened.

† Opening in each Dog is 1/16" over listed "Capacity" to easily accommodate rough or irregular pieces.

Number	† Capacity
72-H	1/2
73-H	3/4
74-H	1
76-H	1-1/2

## WILLIAMS' CARBIDE TIPPED TURNING CUTTER BITS



**80°  
Round  
Nose**



**Left  
Hand**



**Right  
Hand**



**Square  
Nose**

Williams CARBIDE TIPPED Turning Cutter Bits are available in four standard cutter shapes and two grades to fit square shank holders. Grade 883 with shanks lacquered Gray and designed for machining cast iron, brass, bronze, aluminum and non-metallics. Grade 78B with shanks lacquered Orange are designed for machining steel. These grades will be found satisfactory for general shop use; Gray for all non-ferrous metals, etc. and Orange for all steels.

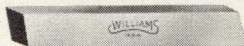
**Please specify Grade desired when ordering:  
Gray for Cast Iron, etc., Orange for Steel.**

Right Hand No.	Left Hand No.	Shank Size	Tip Size
AR-4	AL-4	1/4 x 1/4 x 1-1/2	3/32x3/16x5/16
AR-5	AL-5	5/16x5/16x2-1/4	3/32x1/4 x 1/2
AR-6	AL-6	3/8 x 3/8 x 2-1/2	3/32x1/4 x 1/2
AR-7	AL-7	7/16x7/16x3	3/32x1/4 x 1/2
AR-8	AL-8	1/2 x 1/2 x 3-1/2	1/8 x 5/16x5/8
AR-10	AL-10	5/8 x 5/8 x 4	5/32x3/8 x 3/4
Square Nose No.	80° Round Nose No.	Shank Size	Tip Size
C-4	D-4	1/4 x 1/4 x 1-1/2	1/16x1/4 x 5/16
C-5	D-5	5/16x5/16x2-1/4	3/32x5/16x3/8
C-6	D-6	3/8 x 3/8 x 2-1/2	3/32x3/8 x 3/8
C-7	D-7	7/16x7/16x3	3/32x7/16x1/2
C-8	D-8	1/2 x 1/2 x 3-1/2	1/8 x 1/2 x 1/2
C-10	D-10	1/2 x 1/2 x 3-1/2	1/8 x 1/2 x 9/16
		5/8 x 5/8 x 4	5/32x5/8 x 5/8

## WILLIAMS' GROUND TOOL CUTTERS

### HIGH SPEED SQUARE TOOL BITS

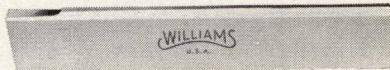
For Turning and Light Tool Holders



No.	Cutter Size	To Fit Holder Nos.
2376	3/16 x 3/16 x 2-1/2	000-S, 000-R, 000-L, 00-S, 00-R, 00-L
2377	1/4 x 1/4 x 2-1/2	0-S, 0-R, 0-L, 15
2378	5/16 x 5/16 x 2-1/2	1-S, 1-R, 1-L, 16
2379	3/8 x 3/8 x 3	2-S, 2-R, 2-L, 17
2380	7/16 x 7/16 x 3-1/2	3-S, 3-R, 3-L, 18
2381	1/2 x 1/2 x 4	4-S, 4-R, 4-L
2382	5/8 x 5/8 x 4-1/2	5-S, 5-R, 5-L
2383	3/4 x 3/4 x 5	6-S, 6-R, 6-L

### CUTTING-OFF BLADES

For Straight, Right and Left Hand  
Cutting-Off Tool Holders



**\* Cutters must be ground on opposite end  
for Left Hand use.**

No.	Cutter Size	* To Fit Holder Nos.	
		Straight and Right Hand	Left Hand
2410	3/32x 1/2x4-1/2	19, 29-R	29-L
2411	3/32x 5/8x5	20, 30-R, S-30-RA, S-20, S-30-R, 2020-S, 2020-R	30-L
2412	1/8 x 3/4x5	21, 31-R, S-21, S-31-R	31-L
2413	1/8 x 7/8x6	22, 32-R, S-22, S-32-R	32-L
2414	3/16x1 x 6-1/2	23, 33-R, S-23, S-33-R	33-L
2415	3/16x1-1/8x7	24, 34-R	34-L
2416	1/4 x 1-1/8x7	25, 35-R	35-L



# WILLIAMS

## WILLIAMS' HIGH SPEED TOOL CUTTERS All Cutters Hardened. Require minimum of grinding

### FOR TURNING and LIGHT BORING TOOL HOLDERS



No.	Cutter Size	To Fit Tool Holder Nos.
<b>2301</b>	3/16 x 3/16 x 2	000-S, 000-R, 000-L, 00-S, 00-R, 00-L
<b>2302</b>	1/4 x 1/4 x 2-1/2	0-S, 0-R, 0-L, 15
<b>2303</b>	5/16 x 5/16 x 2-1/2	1-S, 1-R, 1-L, 16
<b>2304</b>	3/8 x 3/8 x 3	2-S, 2-R, 2-L, 17
<b>2305</b>	7/16 x 7/16 x 3-1/2	3-S, 3-R, 3-L, 18
<b>2306</b>	1/2 x 1/2 x 4	4-S, 4-R, 4-L
<b>2307</b>	5/8 x 5/8 x 4-1/2	5-S, 5-R, 5-L
<b>2308</b>	3/4 x 3/4 x 5	6-S, 6-R, 6-L

### FOR STRAIGHT, R and L HAND CUTTING-OFF TOOL HOLDERS



Straight and Right Hand		Left Hand	Cutter Size
No.	To Fit Holders	No. Holder	
<b>2401</b>	19, 29-R	<b>2451</b> 29-L	3/32x 1/2x4-1/2
<b>2402</b>	20, 30-R, S-30-RA, S-20, S-30-R, 2020-S and R	<b>2452</b> 30-L	3/32x 5/8x5
<b>2403</b>	21, 31-R, S-21, S-31-R	<b>2453</b> 31-L	1/8 x 3/4x5
<b>2404</b>	22, 32-R, S-22, S-32-R	<b>2454</b> 32-L	1/8 x 7/8x6
<b>2405</b>	23, 33-R, S-23, S-33-R	<b>2455</b> 33-L	3/16x1 x6-1/2
<b>2406</b>	24, 34-R	<b>2456</b> 34-L	3/16x1-1/8x7
<b>2407</b>	25, 35-R	<b>2457</b> 35-L	1/4 x1-1/8x7

### FOR STRAIGHT, R and L HAND SIDE-TOOL HOLDERS



Straight and Right Hand		Left Hand		Cutter Size
No.	To Fit Holders	No.	Holder	
<b>2621</b>	19, 29-R	<b>2511</b>	29-L	1/8 x 1/2x4-1/2
<b>2622</b>	20, 30-R	<b>2512</b>	30-L	5/32x 5/8x5
<b>2623</b>	21, 31-R	<b>2513</b>	31-L	3/16x 3/4x6
<b>2624</b>	22, 32-R	<b>2514</b>	32-L	1/4 x 7/8x7
<b>2625</b>	23, 33-R	<b>2515</b>	33-L	5/16x1 x8
<b>2626</b>	24, 34-R	<b>2516</b>	34-L	3/8 x1-1/8x9

### FOR BORING and SHAPER BARS



No.	To Fit Bar Nos.	For Use at Angle of	Cutter Size
<b>*2321</b>	0B, 0B-X, 08, 08-X	90°	3/16x3/16x1
<b>2301</b>	0B, 0B-X, 08, 08-X	45°	3/16x3/16x2
<b>2323</b>	09, 09-X, 0532	90°	1/4 x1/4 x1- 7/32
<b>2302</b>	09, 09-X	45°	1/4 x1/4 x2- 1/2
<b>2325</b>	010, 010-X, 0597	90°	5/16x5/16x1- 7/16
<b>2303</b>	010, 010-X	45°	5-16x5/16x2 1/2
<b>2327</b>	011, 011-X, 0598	90°	3/8 x3/8 x1-13/16
<b>2304</b>	011, 011-X	45°	3/8 x3/8 x3
<b>2328</b>	012, 012-X	90°	3/8 x3/8 x2- 1/16
<b>2304</b>	012, 012-X	45°	3/8 x3/8 x3
<b>2329</b>	013, 013-X	90°	7/16x7/16x2- 3/16
<b>2305</b>	013, 013-X	45°	7/16x7/16x3- 1/2
<b>2331</b>	014, 014-X	90°	1/2 x1/2 x2- 1/2
<b>2306</b>	014, 014-X	45°	1/2 x1/2 x4
<b>2333</b>	015, 015-X	90°	5/8 x5/8 x3
<b>2307</b>	015, 015-X	45°	5/8 x5/8 x4- 1/2

### FOR THREADING TOOL HOLDERS



No.	Cutter Size	To Fit Holder Nos.
<b>8101</b>	1/4 x 1/4 x 2-1/2	S-50
<b>8102</b>	5/16 x 5/16 x 2-1/2	S-51
<b>8103</b>	3/8 x 3/8 x 3	S-52
<b>8151</b>	Formed	00-T, 50
<b>8153</b>	Formed	51
<b>8155</b>	Formed	52
<b>8157</b>	Formed	53

### FOR PLANING TOOL HOLDERS



No.	Cutter Size	To Fit Holder Nos.
<b>2351</b>	1/4 x 3/8 x 2-1/2	40
<b>2352</b>	5/16 x 7/16 x 3	401
<b>2353</b>	3/8 x 1/2 x 3-1/2	41
<b>2354</b>	1/2 x 3/4 x 4-1/4	42
<b>2355</b>	5/8 x 7/8 x 5	43
<b>2356</b>	3/4 x 1 x 6	44
<b>2357</b>	7/8 x 1-1/8 x 7	45

\* Also fits Shaper Bar No. 0530.

## WILLIAMS' "VULCAN"® DROP-FORGED LATHE DOGS With Bent Tail



Safety Screw  
and Wrench

Furnished with Interchangeable Safety or Square Head Screws.

The Screws are of special steel, hardened and tempered. They are supplied in two types, Safety and Square Head, which are interchangeable in corresponding Dogs.

When ordering extra Screws, state whether Safety or Square Head type is wanted: if latter, specify diameter of screw.

Square Head Screws will be supplied, unless otherwise specified. Unless otherwise specified, a Wrench will be supplied for Dogs with Safety Screws at extra price.

No.	Capacity	SCREWS			
		Square Head		Safety	
		Diam.	Length Under Hd.	Diam.	Extreme Length

### WITH ONE SCREW

1	3/8	7/16	1	7/16	5/8
2	1/2	9/16	1-1/4	9/16	13/16
3	3/4	5/8	1-5/8	5/8	1- 1/16
4	1	5/8	2	5/8	1- 1/4
5	1-1/4	3/4	2-1/4	3/4	1- 3/8
6	1-1/2	7/8	2-7/16	7/8	1-11/16
7	1-3/4	7/8	2-7/16	7/8	1-11/16
8	2	1	2-3/4	1	1- 7/8
9	2-1/2	1-1/8	3	1-1/8	2
10	3	1-1/4	3-1/4	1-1/4	2- 1/8
11	3-1/2	1-3/8	3-1/2	1-3/8	2- 1/2
12	4	1-1/2	3-3/4	1-1/2	2- 5/8
13	5	1-5/8	4-1/2	1-5/8	3- 3/8

### WITH TWO SCREWS

112	4	1-1/2	3-3/4	1-1/2	2-5/8
113	5	1-5/8	4-1/2	1-5/8	3-3/8
114	6	1-5/8	4-1/2	1-5/8	3-3/8

## WILLIAMS' "VULCAN"® DROP-FORGED CLAMP LATHE DOGS



These Lathe Dogs are heat-treated after forging to increase further their strength and reduce the liability of springing.

Screws are made of a special grade of steel and are hardened and tempered. The Nuts are case-hardened.

The Nuts furnish ready means of arrangement for the minimum projection of Screws beyond the body of Dog and thus lessen the danger to the operator when tool is in use.

No.	Capacity		Screws	
	Maximum Opening	Distance Between Screws	Diameter	Length Under Head
61	1-5/8	1-3/4	5/16	2-3/4
62	1-7/8	2-1/4	3/8	3-5/16
63	2-1/2	2-3/4	7/16	4-1/4
64	3-1/4	3-1/2	1/2	5-3/8

## MILLING MACHINE DOGS With Flat, Bent Tail



These are designed for taper work carried between centers on milling machines. The flat tail works in the head-slot without the backlash unavoidable in Dogs with taper tail. They serve also as a heavy pattern Dog.

The Screws are made of a special grade of steel and are hardened and tempered.

Number	Capacity	Screw	
		Diameter	Length Under Head
42	1/2	3/8	1-1/4
43	3/4	7/16	1-5/8
44	1	1/2	2
45	1-1/4	1/2	2-1/4
46	1-1/2	9/16	2-3/8
47	1-3/4	5/8	2-1/2
48	2	5/8	2-7/8



# WILLIAMS

## WILLIAMS' "VULCAN"® DROP-FORGED STRAP CLAMPS

These forgings are made from a strong, tough grade of carefully selected steel and are heat-treated after forging to increase their strength and stiffness.

### UNIVERSAL ADJUSTABLE PATTERN



Designed for holding work in planers, boring mills, drill presses, milling machines, etc. Ideal for irregular shapes and varying sizes. Position of the saddle may be changed to maintain vertical, right angle positioning of the tie-bolt.

No.	Length	Width of Clamp	Adjustment	Max. "T" Slot Bolt, Size Inches
21	5-1/16	1-5/8	2-1/4	5/8
22	8	2-1/8	4	3/4
23	12	2-3/4	6-1/4	1

### FINGER PATTERN DOUBLE END



No.	Length	Width	Thickness	Diam. Hole	Finger Diam. and Length
30	3	1- 1/2	5/8	11/16	1/2
35	3-1/2	1- 5/8	3/4	11/16	5/8
40	4	1-13/16	7/8	13/16	3/4

### FINGER PATTERN SINGLE END



No.	Lgth.	Width	Thick-ness	Slot; Min. Dimensions		Finger Diam. and Length
				Length	Width	
44	4	1-5/8	3/4	1- 3/8	11/16	1/2
46	6	1-3/4	7/8	1-15/16	11/16	5/8
48	8	2-1/8	1-1/8	2- 9/16	13/16	3/4

### PLAIN SLOT PATTERN



No.	Length	Width	Thick-ness	Slot; Min. Dim.	
				Length	Width
54	4	1-5/8	3/4	1- 3/8	11/16
56	6	1-3/4	7/8	2- 1/16	11/16
58	8	2-1/8	1-1/8	2-13/16	13/16
59	10	2-1/2	1-3/8	3-11/16	15/16

### ADJUSTABLE STEP PATTERN



No.	Length	Width	Thick-ness	Slot; Min. Dim.	
				Length	Width
54A	4	1-5/8	3/4	1- 3/8	11/16
56A	6	1-3/4	7/8	2- 1/16	11/16
58A	8	2-1/8	1-1/8	2-13/16	13/16
59A	10	2-1/2	1-3/8	3-11/16	15/16

### "U" PATTERN



No.	Length	Max. Width	Thick-ness	Slot; Min. Dimensions		Finger Diam. and Length
				Length	Width	
64	4-1/2	1-3/4	3/4	3-1/2	11/16	1/2
66	6-5/8	2	7/8	5-1/2	11/16	5/8
68	8-3/4	2-1/2	1-1/8	7-3/8	13/16	3/4
110	10	2-3/4	1-1/4	9	15/16	15/16
112	12	3-1/4	1-3/4	11	1-1/16	1-1/16

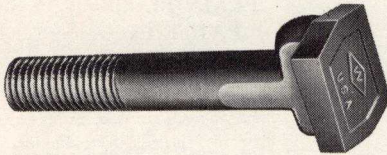
### GOOSE NECK PATTERN



No.	Length	Width	Thick-ness	Slot; Min. Dimensions		Neck Offset
				Length	Width	
74	4	1-5/8	3/4	15/16	11/16	13/16
76	6	1-3/4	7/8	1-11/16	11/16	15/16
78	8	2-1/8	1-1/8	2- 7/16	13/16	1-1/8

## WILLIAMS' SET-UP ACCESSORIES

### T-SLOT BOLTS



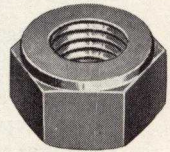
For setting-up work on planers, shapers, milling machines and other similar applications. Forged from a superior grade of steel to withstand severe machine shop use. Designed to fit T-Slots, threaded Unified Coarse, ready for use.

Lengths Under Head in Inches

3/8" T-Slot Size	1/2" T-Slot Size	5/8" T-Slot Size	3/4" T-Slot Size	7/8" T-Slot Size 3/4" Shank	1" T-Slot Size 7/8" Shank
Use 3HN Hex Nut 3W Washer	Use 4HN Hex Nut 4W Washer	Use 5HN Hex Nut 5W Washer	Use 6HN Hex Nut 6W Washer	Use 6HN Hex Nut 6W Washer	Use 7HN Hex Nut 7W Washer
1	1-1/4				
1-1/2	1-1/2				
1-3/4	1-3/4				
2		2	2		
2-1/4	2-1/4	2-1/4			
2-1/2	2-1/2	2-1/2	2-1/2	2-1/2	
	2-3/4	2-3/4			
3	3	3	3	3	3
3-1/2	3-1/2	3-1/2	3-1/2	3-1/2	
4	4	4	4	4	4
4-1/2	4-1/2	4-1/2	4-1/2	4-1/2	
5	5	5	5	5	5
5-1/2	5-1/2	5-1/2	5-1/2	5-1/2	
6	6	6	6	6	6
7	7	7	7	7	7
8	8	8	8	8	8
9	9	9	9	9	9
10	10	10	10	10	10
	12		12	12	12
		14	14	14	14
		16	16	16	16
		18	18	18	18

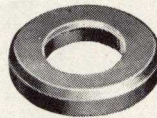
### HEX NUTS FOR T-SLOT BOLTS

Specially designed for use with Williams T-Slot Bolts. Threaded Unified Coarse and case hardened.



No.	Bolt Diam., Inches	Threads Per Inch	Thick- ness, Inches	Across Flats, Inches
3 HN	3/8	16	7/16	11/16
4 HN	1/2	13	5/8	7/8
5 HN	5/8	11	3/4	1-1/16
6 HN	3/4	10	1-1/4	1-1/4
7 HN	7/8	9	1	1-7/16

### FLAT WASHERS

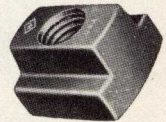


Extra thick to resist bending with beveled edges on one side.

No.	Bolt Diameter, Inches	Outside Diameter, Inches	Thickness, Inches
3W	3/8	7/8	1/8
4W	1/2	1	3/16
5W	5/8	1-1/4	1/4
6W	3/4	1-1/2	1/4
7W	7/8	1-3/4	1/4

### T-SLOT NUTS

For setting-up work on planers, shapers, milling machines, etc., Threaded Unified Coarse.



No.	T-Slot Size	Stud Diam.	Threads Per Inch			
5TN	5/8	1/2	13	1-1/8	13/32	1-1/4
6TN	3/4	5/8	11	1-5/16	17/32	1-1/2
7TN	7/8	3/4	10	1-1/2	9/16	1-3/4
8TN	1	7/8	9	1-3/4	5/8	2
10TN	1-1/4	1	8	2	7/8	2-3/8

### SET-UP WEDGES

For setting-up work on planers, shapers, milling machines, etc.



No.	Length	Width	Thick End
3WG	3	1	1/4
5WG	5	1	1/2
6WG	6	1-1/4	3/4

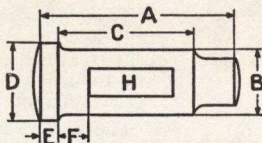
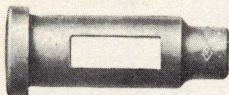




## WILLIAMS' "VULCAN"® TOOL POST FITTINGS

### TOOL POSTS

Unfinished — Openings Punched Out



Number	5	10	20	23	28	30	40	50	60
Length, A.....	2-15/16	4-1/16	4-9/16	5	5-3/16	5-1/4	6-5/16	7-3/8	8-3/4
Body Diameter, B...	1-1/32	1-1/4	1-5/8	1-7/16	1-9/16	1-13/16	2-1/16	2-1/4	2-31/32
Length, C.....	2	2-7/8	3-1/4	3-1/2	3-11/16	3-3/4	4-3/8	5	6
Base Diameter, D...	1-7/32	1-5/8	2-1/8	1-7/8	2-1/16	2-5/16	2-5/8	2-15/16	3-5/8
Thickness, E.....	5/16	1/4	7/16	5/16	5/16	1/2	9/16	5/8	3/4
Base to Opening, F..	7/16	1/2	13/16	5/8	5/8	15/16	1-3/16	1-3/8	1-1/2
Opening Size, H.....	1-5/16	1-15/16	1-7/8	2-1/2	2-11/16	2-1/8	2-1/2	2-7/8	3-9/16
	x 7/16	x 19/32	x 11/16	x 21/32	x 11/16	x 3/4	x 7/8	x 15/16	x 1
For Use With Wedge	5	10	15 & 18	15	15 & 18	18 & 20	30 & 40	60	
Ring..	5	10	11	14	18	20	30 & 40	60	

### TOOL POST WEDGES

For Changing Angles of Lathe Tools



Number	5	10	11	15	18	20	30	40	60	65
Length.....	2-13/32	3	3-3/8	3-3/8	3-7/8	3-7/8	4-3/8	4-7/8	5-1/4	5-5/16
Width—Top.....	13/32	9/16	1/2	5/8	11/16	11/16	3/4	13/16	15/16	7/8
Width—Extreme...	1/2	21/32	19/32	23/32	3/4	13/16	7/8	15/16	1-3/32	1-1/32
Extreme Thickness	11/32	31/64	25/64	7/16	15/32	17/32	1/2	21/32	3/4	29/32
Radius.....	3	2-7/8	4-5/8	4-5/8	4-1/2	4-3/4	5-1/2	5-3/4	6	5
For Use with Post..	5	10	20	20	30	30	40	40	50	
For Use with Ring..	5	10	11	11	11 & 20	20	30	40	60	

### TOOL POST RINGS

For Changing Angles of Lathe Tools



Number	5	10	11	14	18	20	30	40	60
Diameter, Outside..	2-1/4	2-15/16	3	3-3/16	3-7/16	3-1/2	3-1/2	4	4-1/2
Diameter; Hole....	1-1/16	1-5/16	1-5/8	1-7/16	1-9/16	1-3/4	2	2	2-3/16
Thickness, Edge....	3/8	7/16	7/16	5/8	11/16	9/16	3/4	3/4	3/4
Radius of Concave..	3	2-7/8	4-5/8	4-5/8	4-1/2	4-3/4	5-1/2	5-3/4	6
For Use with Post..	5	10	20	23	28	30	40	40	50
For Use with Wedge	5	10	11 & 15	18 & 20	18	18 & 20	30	40	60

# WILLIAMS

## WILLIAMS' DROP-FORGED CLAMPS

“VULCAN”®

### HEAVY SERVICE “C” CLAMPS



These are drop-forged from a strong, tough grade of carefully selected steel, and are subjected to a refining process, or heat-treatment, after forging, which increases their strength and reduces the liability of springing; they are the strongest “C” clamps on the market.

The Screws are made of a special grade of steel, and are hardened and tempered.

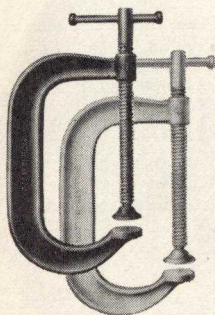
With long Screws, minimum capacity of all Clamps is 0.

No.	Capacity		Depth of Throat from Center of Screw	Extreme Dimensions of Body		Standard Screw	
	Maximum	Min. with Std. Screw		Length	Width	Diam.	Lgt. Under Head
0	3/4	0	3/4	2 1/4	2	5/16	1 1/2
1	1 1/4	0	1 1/8	3 1/4	2 3/4	3/8	2 1/4
1 1/2	1 3/4	0	1 1/2	4 1/4	3 5/8	1/2	3 1/8
2	2 1/4	7/8	1 3/4	5 1/2	4 1/2	5/8	2 7/8
3	3 1/4	1 5/16	2 3/8	7 1/4	5 3/4	3/4	3 3/4
4	4 1/2	2	2 3/4	8 7/8	6 1/2	7/8	4 1/2
5	5 1/2	2 1/2	3 1/8	10 3/8	7	7/8	5 3/8
6	6 1/2	3 1/16	3 3/8	12	7 7/8	1	5 7/8
8	8 1/2	4 1/4	3 3/4	14 3/8	8 1/2	1 1/8	7
10	10 1/2	6 3/8	4 1/8	16 7/8	9	1 1/8	7
12	12 1/2	7 5/8	4 1/2	19 3/8	9 3/4	1 1/4	8

“VULCAN”®

### DEEP THROAT “C” CLAMPS

For Light Duty



Designed for use where clearance provided by a deep throat is required. Drop-forged from special steel and heat-treated.

The Screws are made from tough, wrought steel, heat-treated and threaded especially for strength and rapid adjustment. Furnished with wrought steel Swivel, as illustrated.

Standard pattern for body-builders, woodworkers and kindred trades. All parts, except screws, are shot-blasted.

Spatter-Resisting for welding. Cadmium-plated to resist the adherence of welding spatter.

Standard Clamps will be furnished unless otherwise specified.

No.		Capacity		Depth of Throat from Center of Screw	Extreme Dimen. of Body		Screw	
Standard	Spatter Resist.	Max.	Min.		Length	Width	Diam.	Length Over All
402	402-S	2	0	2	4 7/8	3 3/4	1/2	4 7/8
403	403-S	3	0	2 3/8	6 1/8	4 1/8	1/2	6 1/8
404	404-S	4	0	2 3/4	7 5/8	4 3/4	5/8	8 1/2
406	406-S	6	0	3 5/8	10 1/4	6	5/8	10 1/2
408	408-S	8	2	4 1/2	12 3/4	7	3/4	11
410	410-S	10	3	5 3/8	15 1/4	8 1/8	3/4	12
412	412-S	12	4	5 3/4	18	9 3/8	7/8	13 1/4



# WILLIAMS

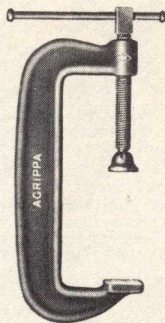
## WILLIAMS' DROP-FORGED CLAMPS

### "AGRIPPA"<sup>®</sup> GENERAL SERVICE "C" CLAMPS

Drop-forged from a strong, tough grade of carefully selected steel. They are also heat-treated, after forging, to increase their strength and reduce the liability of springing.

Screws are made of a special grade of steel, hardened and tempered. The swivels are drop-forged.

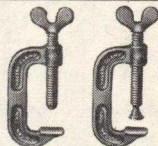
No.	Capacity		Depth of Throat from Center of Screw	Extreme Dimension of Body		Screw	
	Max.	Min.		Length	Width	Diam.	Length under Head incl. Swivel
102	2	0	1-1/2	5-7/8	3-1/2	1/2	4
103	3	0	2	6-7/8	4-3/8	5/8	5-5/8
104	4	0	2-3/8	8-1/4	5-1/8	3/4	6-7/8
106	6	2	2-1/2	10-3/8	5-3/8	3/4	6-7/8
108	8	4	2-5/8	12-1/2	5-1/2	3/4	6-7/8
110	10	6	2-3/4	14-5/8	5-3/4	3/4	6-7/8
112	12	8	2-7/8	16-7/8	6	3/4	6-7/8
115	15	10	3-1/16	20-1/4	6-1/2	7/8	8-1/8
118	18	13	3-1/4	23-1/2	7	7/8	8-1/8



### "VULCAN"<sup>®</sup>

#### TOOL-MAKERS' "C" CLAMPS

Swivel or Plain. Screws, with wings, permit use of lever. Drop-forged, hardened and tempered. Screws are interchangeable.

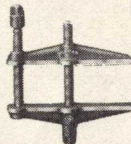


No.	Capacity		Depth of Throat	Extreme Dimensions		Screw	
	Max.	Min.		Length	Width	Diameter	Length
WITH PLAIN SCREW							
201	1	0	11/16	2-1/8	1-1/2	5/16	1-11/16
202	2	5/16	13/16	3-3/8	1-7/8	3/8	2- 7/16
203	3	11/16	15/16	4-1/2	2-1/8	3/8	3- 3/16
204	4-1/4	1-3/16	1-1/8	6-3/8	2-1/2	7/16	4- 1/8
WITH SWIVEL SCREW							
201	3/4	0	11/16	2-1/8	1-1/2	5/16	1-11/16
202	1-3/4	5/16	13/16	3-3/8	1-7/8	3/8	2- 7/16
203	2-3/4	11/16	15/16	4-1/2	2-1/8	3/8	3- 3/16
204	4	1-3/16	1-1/8	6-3/8	2-1/2	7/16	4- 1/8

### "VULCAN"<sup>®</sup> MACHINISTS' CLAMPS

Drop-forged from strong, selected steel and heat-treated. The knurled portion of the hardened and tempered Screws permit rapid and easy adjustment.

When ordering extra Screws specify whether for end or center; lengths given are under-head dimensions.



No.	Capacity		Screws			
	Maximum Opening	Length Jaw from Screw	End		Center	
			Diameter	Length	Diameter	Length
301	1-1/4	1-3/4	5/16	2-1/8	5/16	2- 5/8
302	2-1/4	2-1/4	3/8	3-1/4	3/8	3-15/16
303	3-1/4	2-3/4	7/16	4-5/8	7/16	5- 1/4
304	4-1/4	3-1/4	1/2	5-3/4	1/2	6- 1/2

# WILLIAMS

## WILLIAMS' DROP-FORGED THUMB NUTS



Type A



Type B

Furnished either Blank or Tapped, tumbled smooth. Nuts tapped Unified Class 2B threads in stock in all sizes. **Other threads to order.** Unless otherwise specified, orders for Tapped Nuts will be supplied with Unified Class 2B threads. Tapped Nuts have base faced at right angle to hole. Special sizes and shapes and Tobin Bronze Nuts to order.

When tapping is ordered, Class 2B is furnished. If additional accuracy is required an extra charge, consistent with the special requirements, will be made. When ordering indicate pattern (A or B) by letter.

Tapped Thumb Nuts will be furnished, unless otherwise specified.

For Bolt; Size	1/8	3/16	1/4	5/16	3/8	7/16	1/2	9/16	5/8	3/4
Threads Per Inch	40	24	20	18	16	14	13	12	11	10
Extreme Width across Wings, Type A	3/4	15/16	1 1/8	1 7/16	1 11/16	2	2 1/4	2 9/16	2 3/4	3 1/4
Type B	25/32	1	1 1/8	1 3/8	1 5/8	1 7/8	2 1/16	2 3/8	2 9/16	3
Diameter, Top of Barrel	1/4	5/16	3/8	7/16	1 1/16	5/8	21/32	3/4	13/16	15/16

## WILLIAMS' DROP-FORGED THUMB SCREWS

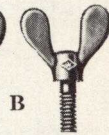
Drop-forged from a fine grade of steel that threads readily and tumbled smooth. Special sizes and shapes and Tobin Bronze Screws to order.

Lengths, longer than those listed, can be furnished special from available dies. Screws with special points can be supplied to order.

Screws with Unified Class 2A threads in stock in all sizes. **Other threading to order.** Unless otherwise specified, Threaded Screws will be furnished with Unified Class 2A threads.



A



B



C



D

When threading is ordered, Class 2A is furnished. If additional accuracy is required an extra charge, consistent with the special requirements, will be made.

When ordering indicate pattern by letter.

Threaded Thumb Screws will be furnished, unless otherwise specified.

Width of Head	Diameter Screw and Threads per Inch † Type C only; D not made									
	1/8 40	3/16 24	1/4 20	5/16 18	3/8 16	7/16 14	1/2 13	9/16 12	5/8 11	3/4 10
Type A	3/4	15/16	1-1/8	1-7/16	1-11/16	2	2-1/4	.....	2-3/4	.....
B	25/32	1	1-3/16	1-3/8	1-5/8	.....	2-1/16	.....	2-9/16	.....
C-D	19/32	27/32	1	1-3/16	1-3/8	1-9/16	1-3/4	1-7/8	2-1/16	†2-1/4

\* Standard Length Under Head in Stock — Blank or Threaded.

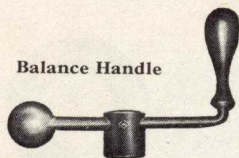
1/4	*	*	*	*	*	*	*	*	*	*
1/2	*	*	*	*	*	*	*	*	*	*
3/4	*	*	*	*	*	*	*	*	*	*
1	*	*	*	*	*	*	*	*	*	*
1-1/4	*	*	*	*	*	*	*	*	*	*
1-1/2	*	*	*	*	*	*	*	*	*	*
1-3/4	*	*	*	*	*	*	*	*	*	*
2	*	*	*	*	*	*	*	*	*	*
2-1/4	*	*	*	*	*	*	*	*	*	*
2-1/2	*	*	*	*	*	*	*	*	*	*
2-3/4	*	*	*	*	*	*	*	*	*	*
3	*	*	*	*	*	*	*	*	*	*
3-1/2	*	*	*	*	*	*	*	*	*	*
4	*	*	*	*	*	*	*	*	*	*



# WILLIAMS

## WILLIAMS' "VULCAN"® CRANK AND BALANCE HANDLES

Balance Handle



Unfinished are plain forgings without hole in hub.

Broached, available in Crank Handles only, have holes finished and hubs recessed or counter-bored in free end, but are otherwise plain forgings.

Crank Handle



Finished are broached, counter-bored, ground, polished, case-hardened all over and gray enamel.

Finished Handles will be furnished unless otherwise specified.

\* Handle cone-shaped; see Crank Handle—illustration.

† Hub is a sphere; flattened on top and bottom; full size drawing on request.

No.	Length			Hub		Square Hole Size Broached		Ball Diam.
	C Hub to C Handle	Ex- treme	Handle above Arm	Diam.	Length	Std. in Stock	Max. to Order	
CRANK HANDLES								
00	1-3/4	2-5/8	2-3/8	1	1- 1/4	1/2	5/8	.....
0	2-1/4	3-1/8	2-1/2	1	1- 1/4	1/2	5/8	.....
1	3	4	2-3/4	1-1/4	1- 1/2	9/16	13/16	.....
2	3-1/2	4-1/2	2-7/8	1-1/16	1- 5/16	1/2	5/8	.....
4	4	5-1/8	3-1/8	1-1/4	1- 3/8	9/16	13/16	.....
6	5	6-1/8	3-1/8	1-1/4	1-13/16	5/8	13/16	.....
8	6	7-1/8	3-1/8	1-1/4	1-15/16	11/16	13/16	.....
10	7	8-1/4	3-3/8	1-3/8	2- 1/16	3/4	7/8	.....
12	8	9-3/8	3-5/8	1-9/16	2- 7/16	7/8	1	.....
14	9-1/8	10-1/2	3-3/4	1-1/2	2- 1/2	7/8	1	.....
16	10	11-1/2	4	1-3/4	3	1	1-1/8	.....

## WILLIAMS' "VULCAN"® MACHINE HANDLE FORGINGS

CONE  
PATTERN



Unfinished  
With Smooth,  
Planished Surface

Number	11	13	15	16
Extreme Length.....	3-1/2	4-1/2	5-1/2	6
Standard Length, Shank.....	1/2	3/4	7/8	1-1/8
Diameter, Shank.....	3/8	7/16	1/2	9/16

BALL  
PATTERN

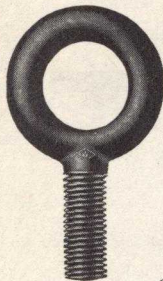


Unfinished  
With Smooth,  
Planished Surface

Number	00	0	1	2	3	4	5	6	7
Extreme Length.....	2	2-1/4	2-3/4	3-1/4	3-7/8	4-1/2	5-1/8	5-7/8	6-5/8
Std. Length, Shank...	1/2	1/2	5/8	3/4	7/8	1	1-1/8	1-1/4	1-1/2
Diameter, Shank....	5/16	11/32	13/32	15/32	15/32	17/32	19/32	11/16	3/4

# WILLIAMS

## WILLIAMS' "VULCAN"® EYE-BOLTS Drop-Forged — Carbon Steel — Weldless



**PLAIN  
PATTERN**

To insure proper service at listed capacity, "Vulcan" Eye Bolts, *after heat-treatment and before threading*, are proof-tested to Military Standards on a standard tension machine to *fifty per cent beyond* their "Safe Working Load."

Unified Coarse (UNC.) Class 2A Threaded Eye Bolts of Standard length are in stock in all sizes; threaded prices are for these with UNC Class 2A Threads; longer lengths and special threads extra.

On standard length Threaded Eye Bolts of Shoulder Pattern the thread runs within 7/32" (No. 21) to 5/8" (No. 36) of shoulder, which is faced.



**SHOULDER  
PATTERN**

When ordering, please state whether Threaded or Blank are desired; Threaded will be supplied, unless otherwise specified.

No.	Shank			Diameter Eye		Capacity Blanks; Tons of 2000 lbs.	
	Diameter; Nominal Rough Size; Blank	Standard Lengths under Eye or Shoulder	Special Length Blank Available Up to	Inside	Outside	Safe Working Load	Breaking Strain, Approx.

### PLAIN PATTERN

1	1/4	1	12	3/4	1- 3/16	.2	1.5
2	5/16	1-1/8	12	7/8	1- 7/16	.4	2.
3	3/8	1-1/4	12	1	1-21/32	.7	3.
4	7/16	1-3/8	12	1- 3/32	1-27/32	1.	4.
5	1/2	1-1/2	12	1- 3/16	2- 1/16	1.3	5.
6	9/16	1-5/8	12	1- 9/32	2- 9/32	1.5	6.
7	5/8	1-3/4	12	1- 3/8	2- 1/2	2.	8.
8	3/4	2	12	1- 1/2	2-13/16	3.	12.
9	7/8	2-1/4	12	1-11/16	3- 1/4	3.5	16.
10	1	2-1/2	12	1-13/16	3- 9/16	4.	20.
11	1-1/8	2-3/4	12	2	4	5.	23.
12	1-1/4	3	12	2- 3/16	4- 7/16	7.5	33.
14	1-1/2	3-1/2	18	2- 1/2	5- 3/16	9.	42.
15	1-3/4	3-3/4	18	2- 7/8	6- 1/16	11.	53.
16	2	4	18	3- 1/4	6- 7/8	13.	68.
17	2-1/2	5	12	4	8- 9/16	16.	85.

### SHOULDER PATTERN

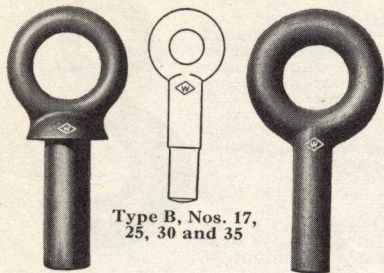
21	1/4	1	12	3/4	1- 3/16	.2	1.5
22	5/16	1-1/8	12	7/8	1- 7/16	.4	2.
23	3/8	1-1/4	12	1	1-21/32	.7	3.
24	7/16	1-3/8	12	1- 3/32	1-27/32	1.	4.
25	1/2	1-1/2	12	1- 3/16	2- 1/16	1.3	5.
26	9/16	1-5/8	12	1- 9/32	2- 9/32	1.5	6.
27	5/8	1-3/4	12	1- 3/8	2- 1/2	2.	8.
28	3/4	2	12	1- 1/2	2-13/16	3.	12.
29	7/8	2-1/4	12	1-11/16	3- 1/4	3.5	16.
30	1	2-1/2	18	1-13/16	3- 9/16	4.	20.
31	1-1/8	2-3/4	18	2	4	5.	23.
32	1-1/4	3	18	2- 3/16	4- 7/16	7.5	33.
34	1-1/2	3-1/2	18	2- 1/2	5- 3/16	9.	42.
35	1-3/4	3-3/4	18	2- 7/8	6- 1/16	11.	53.
36	2	4	18	3- 1/4	6- 7/8	13.	68.



# WILLIAMS

## WILLIAMS' MISCELLANEOUS EYE BOLTS

Drop-Forged — Carbon Steel — Weldless



Type B, Nos. 17, 25, 30 and 35

Type A

Type B

† Shanks of B-17, 25, 30 and 35 are 7/16, 1/2, 9/16 and 5/8" in diameter for 3/4, 1, 1, and 1-1/8" from end respectively, as illustrated.

No.	Shank			Diameter Eye	
	Diam.	Length	Special Length Blank Available Up to	Inside	Outside

### TYPE A—BLANK

1	1/4	3/4	3	3/8	3/4
10	3/8	3	...	3/4	1-3/8
12	3/8	3	...	3/8	1
11	7/16	2-3/16	...	1-7/32	2-7/32
13	7/16	2-3/4	...	5/8	1-3/8
14	15/32	1-5/8	...	1/2	1-1/4
15	1/2	2	...	9/16	1-1/4
16	1/2	3/4	...	1-3/8	2-3/8
17	1/2	4	...	1	1-3/4
20	9/16	2	...	5/8	1-1/2
25	5/8	1-3/4	...	7/8	1-5/8
26	5/8	1-3/4	4-1/2	1-1/8	2
40	13/16	3-1/4	...	3/4	2-1/8
55	1	1-5/16	...	7/8	2-3/8
58	1-1/16	4-1/8	...	1-1/8	2-7/8

### TYPE B—BLANK

1	1/4	1/2	...	3/8	3/4
4	5/16	3	...	5/16	15/16
5	3/8	6	...	1/2	1-1/8
10	7/16	1-1/8	...	1	1-3/4
15	1/2	1-1/2	4-1/2	13/16	1-13/16
16	1/2	3-1/4	...	7/16	1-7/16
17	1/2	1-3/4	...	1/2	1-1/8
25	5/8	2-3/8	...	1/2	1-1/4
26	5/8	2-3/4	...	11/16	1-11/16
27	5/8	3/4	...	1-1/2	2-1/2
30	11/16	2-1/2	...	9/16	1-7/16
35	3/4	2-3/4	...	5/8	1-5/8
45	7/8	4-1/8	...	1-1/8	2-3/8
50	15/16	5	...	1-1/8	2-3/8
55	1	2-3/4	...	3/4	2

## WILLIAMS' DROP-FORGED ROD ENDS

Unfinished



Drop-forged from mild steel which welds easily.

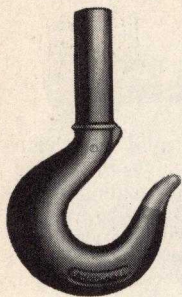
Dimensions show nominal unfinished forging sizes and are subject to slight variations. Prices will be given for special forms on receipt of models or drawings and specifications stating quantity desired.

Largest Diameter Head (a) 1-1/4"; (b) 1-1/8"; (c) 1-9/16".

No.	Shank			Head	
	Diam.	Standard Length under Head	Special Length Available Up to	Diameter	Thick-ness
0B	3/16	4-13/16	..	3/8	1/4
1C	1/4	5	9	5/8	1/4
1D	1/4	2-3/8	9	7/16	1/4
2A	5/16	3-3/4	9	3/4	7/16
2B	5/16	3-1/8	..	3/4	5/16
2C	5/16	5-3/4	..	3/4	3/8
2D	5/16	1-1/4	..	13/16	3/8
3A	3/8	2	9	1	3/8
3C	3/8	3-1/2	9	13/16	3/8
3E	3/8	3-1/8	..	5/8	5/8
3F	3/8	1-1/8	..	3/4	3/8
3G	3/8	1-7/16	..	5/8	3/8
3H	3/8	1-5/8	..	3/4	3/8
3J	3/8	3-1/16	..	7/8	3/8
4B	7/16	4-1/2	9	15/16	5/8
5A	1/2	4-3/8	15	(a) 1	1/2
5C	1/2	3-1/16	..	7/8	7/16
5D	1/2	2-7/8	12	(b) 3/4	13/16
5E	1/2	2-1/8	12	1-1/16	9/16
5F	1/2	2-1/16	12	13/16	11/32
7A	5/8	2-3/8	18	1-1/8	15/32
7B	5/8	4-7/8	18	1-1/4	19/32
7D	5/8	7-1/2	18	1-5/32	21/32
7E	5/8	5-7/8	9	(c) 1-1/8	1-1/16
7F	5/8	4-1/2	18	1-7/16	11/16
7G	5/8	2-5/16	..	1	7/16
9A	3/4	3-7/8	9	1-3/4	5/8
9B	3/4	4	15	1-1/2	13/16
9C	3/4	4-3/8	20	1-1/8	3/4
11A	7/8	3-1/2	15	1-1/2	1-1/16
11B	7/8	4	18	2	15/16
13B	1	3-1/2	9	1-5/8	1-1/2
13C	1	3-1/2	18	1-15/32	1-1/8
14A	1-1/16	5-3/4	18	2-1/16	1-1/8
15B	1-1/8	6	18	2-1/4	1-1/4
17A	1-1/4	6	24	2-5/16	1-1/2

# WILLIAMS

## WILLIAMS' "VULCAN"® DROP-FORGED HOIST HOOKS REGULAR PATTERN Heat-Treated and Proof-Tested



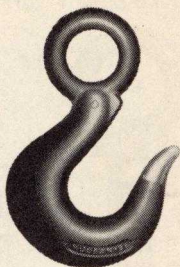
Improvements in material and design have been made throughout the entire line of Williams' Drop-Forged Hoist Hooks. Strengths have been greatly increased and capacity ranges extended. Consult your distributor or ask for Catalog 303 for complete data.

Hooks made from Special Steels, Tobin Bronze or other Non-Ferrous Metals from standard or special dies to order in quantities; prices on application.

† Shanks can be made longer at an additional charge per extra inch or fraction thereof.

‡ Made from special alloy steel; others from carbon steel.

\* Hook shanks, Nos. 2 to 12, are 1/16" to 3/32" larger to allow for machining; Nos. 13 to 16 are rough machined plus 1/32", minus 0".



No.	Capacity Tons of 2000 lbs.			Extreme Dimensions		Opening or Throat	Shank Diameter or Eye Diameter Outside	Shank Length or Eye Diameter Inside
	Safe Working Load F.S. = 4	Average Load at Elastic Limit	Approx. Load to Straighten Out	Length	Width			

### REGULAR SHANK PATTERN

2	.8	2.2	3.3	5-1/32	3	1	1/2	2
3	1.	2.6	4.	5-17/32	3- 3/16	1-1/16	9/16	2-1/4
4	1.1	2.9	4.5	6-1/8	3- 9/16	1-1/8	5/8	2-1/2
5	1.8	4.5	7.	6-27/32	4	1-1/4	3/4	2-3/4
6	2.76	7.1	11.	7- 5/8	4- 9/16	1-3/8	7/8	3
7	3.10	8.1	12.5	8- 3/8	5- 1/16	1-1/2		3-1/4
8	3.75	9.7	15.	9- 5/16	5- 7/8	1-3/4	1-1/8	3-1/2
9	5.	13.	20.	10- 1/4	6- 1/2	1-7/8	1-1/4	3-3/4
10	5.25	13.6	21.	11- 5/32	7- 3/16	2-1/16	1-3/8	4
11	5.5	14.3	22.	12- 3/32	7-11/16	2-1/4	1-1/2	4-1/4
12	8.75	22.7	35.	13- 5/32	8- 9/16	2-1/2	1-5/8	4-1/2
13	11.25	28.3	45.	14-17/32	9- 9/16	3	1-3/4	†5
14	12.5	32.5	50.	16- 9/32	11- 7/16	3-3/8	2	†5-1/2
15	20.	55.	80.	18-11/16	13- 7/8	4	2-3/8	†6
†15A	23.75	62.	95.	18-11/16	13- 7/8	4	2-3/8	†6
16	25.	65.	100.	21-11/16	15- 5/8	4-1/2	2-3/4	†7
†16A	33.75	88.	135.	21-11/16	15- 5/8	4-1/2	2-3/4	†7
17	58.75	153.	235.	30-13/16	19	5-1/4	4-1/16	12 or 24
†17A	68.75	178.	275.	30-13/16	19	5-1/4	4-1/16	12 or 24

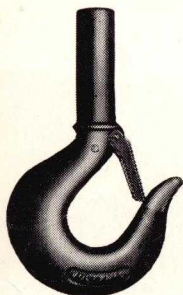
### REGULAR EYE PATTERN — WELDLESS

22	.8	2.2	3.3	4-13/32	3	1	1-1/2	3/4
23	1.	2.6	4.	4-29/32	3- 3/16	1-1/16	1-3/4	7/8
24	1.1	2.9	4.5	5-15/32	3- 9/16	1-1/8	2	1
25	1.8	4.5	7.	6- 7/32	4	1-1/4	2-1/4	1-1/8
26	2.75	7.1	11.	6-29/32	4- 9/16	1-3/8	2-1/2	1-1/4
27	3.10	8.1	12.5	7- 3/4	5- 1/16	1-1/2	2-3/4	1-3/8
28	3.75	9.7	15.	8-11/16	5- 7/8	1-3/4	3-1/8	1-1/2
29	5.	13.	20.	9- 5/8	6- 1/2	1-7/8	3-3/8	1-5/8
30	5.25	13.6	21.	10-17/32	7- 3/16	2-1/16	3-5/8	1-3/4
31	5.5	14.3	22.	11-23/32	7-11/16	2-1/4	4-1/4	2
32	8.75	22.7	35.	13- 3/32	8- 9/16	2-1/2	4-7/8	2-3/8
33	11.25	28.3	45.	14-25/32	9- 9/16	3	5-1/2	2-3/4
34	12.5	32.5	50.	16-29/32	11- 7/16	3-3/8	6-3/8	3-1/8
35	20.	55.	80.	19-15/16	13- 7/8	4	7	3-1/2
36	25.	65.	100.	22-15/16	15- 5/8	4-1/2	8-1/2	4-1/2
†36A	33.75	88.	135.	22-15/16	15- 5/8	4-1/2	8-1/2	4



## WILLIAMS' "VULCAN"® DROP-FORGED HOIST HOOKS SAFETY PATTERN

### Heat-Treated and Proof-Tested

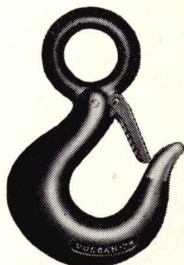


Rugged latches have powerful non-corrosive snap springs. Loads cannot be jarred from the hook. Design is such that maximum throat opening is available.

Hooks made from Special Steels, Tobin Bronze or other Non-Ferrous Metals from standard or special dies to order in quantities; prices on application.  
† Shanks can be made longer at an additional charge per extra inch or fraction thereof.

‡ Made from special alloy steel; others from carbon steel.

\* Hook shanks, Nos. 2 to 12, are 1/16" to 3/32" larger to allow for machining; Nos. 13 to 16 are rough machined plus 1/32", minus 0".



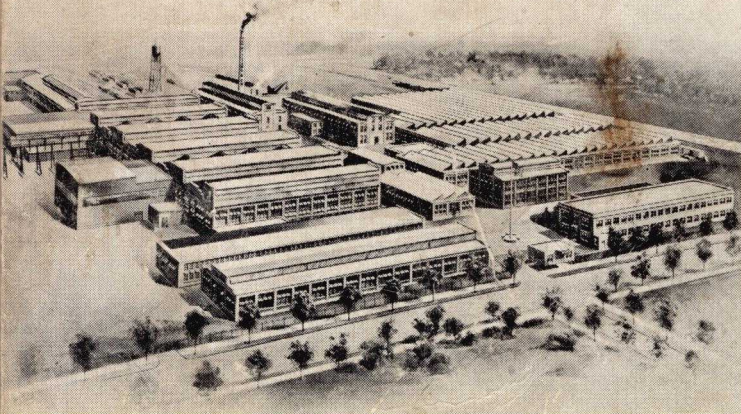
No.	Capacity Tons of 2000 lbs.			Extreme Dimensions		Opening or Throat	Shank Diameter or Eye Diameter Outside	Shank Length or Eye Diameter Inside
	Safe Working Load F.S. = 4	Average Load at Elastic Limit	Approx. Load to Straighten Out	Length	Width			

### SAFETY SHANK PATTERN

2-S	.8	2.2	3.3	5- 1/32	3	7/8	1/2	2
3-S	1.	2.6	4.	5-17/32	3- 3/16	31/32	9/16	2-1/4
4-S	1.1	2.9	4.5	6- 1/8	3- 9/16	1- 1/32	5/8	2-1/2
5-S	1.8	4.5	7.	6-27/32	4	1- 1/8	3/4	2-3/4
6-S	2.75	7.1	11.	7- 5/8	4- 9/16	1- 7/32	7/8	3
7-S	3.10	8.1	12.5	8- 3/8	5- 1/16	1- 5/16	1	3-1/4
8-S	3.75	9.7	15.	9- 5/16	5- 7/8	1- 5/8	1-1/8	3-1/2
9-S	5.	13.	20.	10- 1/4	6- 1/2	1- 3/4	1-1/4	3-3/4
10-S	5.25	13.6	21.	11- 5/32	7- 3/16	1- 7/8	1-3/8	4
11-S	5.5	14.3	22.	12- 3/32	7-11/16	2- 1/16	1-1/2	4-1/4
12-S	8.75	22.7	35.	13- 5/32	8- 9/16	2- 5/16	1-5/8	4-1/2
13-S	11.25	28.3	45.	14-17/32	9- 9/16	2-25/32	1-3/4	‡5
14-S	12.5	32.5	50.	16- 9/32	11- 7/16	3- 5/32	2	‡5-1/2
15-S	20.	55.	80.	18-11/16	13- 7/8	3- 3/4	2-3/8	‡6
‡15-AS	23.75	62.	95.	18-11/16	13- 7/8	3- 3/4	2-3/8	‡6
16-S	25.	65.	100.	21-11/16	15- 5/8	4- 3/16	2-3/4	‡7
‡16-AS	33.75	88.	135.	21-11/32	15- 5/8	4- 3/16	2-3/4	‡7

### SAFETY EYE PATTERN — WELDLESS

22-S	.8	2.2	3.3	4-13/32	3	7/8	1-1/2	3/4
23-S	1.	2.6	4.	4-29/32	3- 3/16	31/32	1-3/4	7/8
24-S	1.1	2.9	4.5	5-15/32	3- 9/16	1- 1/32	2	1
25-S	1.8	4.5	7.	6- 7/32	4	1- 1/8	2-1/4	1-1/8
26-S	2.75	7.1	11.	6-29/32	4- 9/16	1- 7/32	2-1/2	1-1/4
27-S	3.10	8.1	12.5	7- 3/4	5- 1/16	1- 5/16	2-3/4	1-3/8
28-S	3.75	9.7	15.	8-11/16	5- 7/8	1- 5/8	3-1/8	1-1/2
29-S	5.	13.	20.	9- 5/8	6- 1/2	1- 3/4	3-3/8	1-5/8
30-S	5.25	13.6	21.	10-17/32	7- 3/16	1- 7/8	3-5/8	1-3/4
31-S	5.5	14.3	22.	11-23/32	7-11/16	2- 1/16	4-1/4	2
32-S	8.75	22.7	35.	13- 3/32	8- 9/16	2- 5/16	4-7/8	2-3/8
33-S	11.25	28.3	45.	14-25/32	9- 9/16	2-25/32	5-1/2	2-3/4
34-S	12.5	32.5	50.	16-29/32	11- 7/16	3- 5/32	6-3/8	3-1/8
35-S	20.	55.	80.	19-15/16	13- 7/8	3- 3/4	7	3-1/2
36-S	25.	65.	100.	22-15/16	15- 5/8	4- 3/16	8-1/2	4
‡36-AS	33.75	88.	135.	22-15/16	15- 5/8	4- 3/16	8-1/2	4



## **GENERAL OFFICE AND FACTORY**

**BUFFALO, NEW YORK**

### **DISTRICT SALES OFFICE**

**32 Worth Street, New York 13, N. Y.**

### **DISTRICT SALES OFFICES AND WAREHOUSES**

**117 North Jefferson St., Chicago 6, Ill.**

**2266 East 38th St., Los Angeles 58, Calif.**

## **THE BROAD- LINE OF ITS KIND**

**CARBON STEEL  
WRENCHES OF  
ALL TYPES**  
**ALLOY STEEL  
"SUPERRENCHES"  
OF ALL TYPES**  
**ADJUSTABLE WRENCHES**  
**TORQUE WRENCHES**  
**DETACHABLE SOCKETS**  
**DRIVERS & SETS**  
**IMPACT SOCKETS**  
**TOOL HOLDERS**  
**CUTTER BITS**  
**LATHE DOGS**  
**STRAP CLAMPS**  
**T-SLOT BOLTS**  
**SET-UP ACCESSORIES**  
**"C" CLAMPS**  
**THUMB NUTS & SCREWS**  
**HOIST HOOKS**  
**EYE BOLTS**  
**MACHINE HANDLES**  
**ROD ENDS**  
**CHAIN PIPE VISES**  
**CHAIN PIPE TONGS**  
**FLANGE-JACKS**  
**PRESS**  
**SCREWDRIVERS**  
**PUNCHES & CHISELS**  
**BALL PEIN HAMMERS**  
**SOFT FACE HAMMERS**  
**FENDER REPAIR TOOLS**  
**GEAR PULLERS**  
**MASONRY DRILLS**  
**POWER AUGER BITS**  
**SCREW EXTRACTORS**

# **J. H. WILLIAMS & CO.**

**DIVISION OF UNITED GREENFIELD CORPORATION**

**400 VULCAN ST., BUFFALO 7, N. Y.**

**FERROUS AND  
NON-FERROUS  
DROP-FORGINGS  
TO ORDER**